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ABSTRACT

The report contains the Third Party Evaluation made on 23 projects in Oregon funded by Title VI of the Elementary and Secondary Education Act (P.L. 89-750) during the fiscal year 1970. Data in the following areas is provided for each of the projects: project title, type of project (disability served), location within the state of Oregon, exact funding allotted, number of children served, background and rationale, project objectives, teaching methodology or design, evaluation plan, results of project in terms of child performance, and the Third Party Evaluators comments. In addition to data on individual projects, information is provided on overall results and general recommendations. (RD)

IMPACT 4

of the Title VI Programs in the State of Oregon

September 1969 - August 1970

Prepared for
The Oregon Board of Education

By

The Teaching Research Division of the
Oregon State System of Higher Education

H. D. Bud Fredericks
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John J. McDonnell

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TEACHING RESEARCH
a Division of the Oregon State System of Higher Education

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TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

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1 – School Year Project Review Board – 1969-70
2 – Summer Project Review Board – 1970

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The Impact in the State of Oregon of Title VI of the Elementary and Secondary Education Act of 1965 as Amended September, 1969 – August, 1970

Introduction:

Title VI of the Elementary and Secondary Education Act of 1965, P. L. 89–750, as amended, authorizes that U. S. Commissioner of Education to make grants for the purpose of assisting states in the initiation, expansion and improvement of programs and projects for the education of handicapped children at the preschool, elementary, and secondary school levels. The term "handicapped children" includes the mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, crippled, or other health impaired children who because of their handicaps require special education and related services.

Foundation of the Title VI program within any state is the State Plan, the contract or agreement between the state and the U. S. Office of Education, for the operation of programs and projects for handicapped children at the preschool, elementary, and secondary school levels. The plan submitted by the State of Oregon was approved by the State Board of Education on April 10, 1968 with an effective date of April 18, 1968. This plan was approved by the United States Office of Education on May 5, 1968.

The State Plan described the present statewide educational program for handicapped children. This description is excerpted and included as Annex A of the publication, **Impact of the Title VI Programs in the State of Oregon**. The State Plan described the procedures for the administration of Title VI within the state.

In order to determine which projects were funded under the Title VI program, the Oregon Board of Education, with the assistance of the Advisory Committee, defined and selected the following criteria for establishing priorities for funding projects and programs:

1) The extent to which the project will provide special education services to categories of handicapped children who are not being served or served adequately through the state reimbursed handicapped child program.
2) Adequacy of description and documentation of the need for the special education service desired in the project.

   Highest priority to projects that stress unmet needs by documenting the number of handicapped children needing the special educational service proposed.
3) Extent to which the project stresses early identification of handicapped children and includes aspects of early treatment.

   Highest priority to projects that provide preschool special education services to handicapped children.
4) Adequacy of the project procedures for identifying the handicapped children to be served.

   Highest priority to projects that provide adequate diagnostic provisions for selecting children in need of the special education service.
5) Extent to which the project is of sufficient size, scope, and quality to give reasonable assurance of meeting the educational needs of the handicapped children to be served.

   Highest priority to projects that provide special educational services focused on manageable numbers of handicapped children qualifying for the service and to projects that are designed to provide comprehensive service for these children.
6) Evidence of supplementation of the regular school program by the proposed project or program. Highest priority to projects that make specific and realistic plans for integration into the regular school program of the handicapped children served by the project.

7) Extent to which other community and state resources are represented in the planning and operation of the project or program.

Highest priority to those projects that make full use of other community and state resources that are able to assist in the planning and operation of the project.

8) Provisions for evaluating the effectiveness of the special education services to be provided in the project.

Highest priority to projects that include specific evaluation procedures that are consistent with the objectives of the project appropriate for the services provided.

9) Provision for participation of qualified, non–public school handicapped children in the project.

Highest priority to projects that make provision for participation of eligible handicapped children enrolled in private schools in the area to be served by the project.

10) Adequacy of the size and qualification of the staff.

Highest priority to the projects employing or purchasing the services of well qualified staff and with a high enough ratio of project staff to the number of handicapped children to be served by the project to ensure effective service.

11) Adequacy of the facilities, both existing and proposed, for conduct of the project or program.

Highest priority to school facilities that are already available to the district and considered appropriate for the needs of the project.

Low priority to expenditures for construction of school facilities in which to conduct the projects.

12) Economic efficiency of the proposed project.

Highest priority to those projects listing a detailed budget of estimated amounts of funds required for operation of the project and for cost–service ratios that are consistent with the special education services to be provided.

The policies and procedures under which Oregon initiated, approved, and conducted state programs and projects and local programs and projects were described completely in **Impact of the Title VI Programs in the State of Oregon**. Essentially this procedure involved school districts submitting applications for Title VI monies. These applications were reviewed by the advisory committee who determined recommendations for funding of applications. These recommendations were approved by the Oregon Board of Education who then notified the applying districts.

Evaluation Plan:

From the inception of the Title VI program within the state, it was determined that Oregon should have, as part of its Title VI operation, a Third Party Evaluation. Consequently, the State Department of Education contracted with Teaching Research, a Division of the Oregon State System of Higher Education for consulting services for the development of an evaluation program for Title VI in Oregon. The report of the evaluation of the summer, 1968 program is contained in **Impact of the Title VI Programs in the State of Oregon.** This evaluation model was considered so acceptable by not only the Oregon Board of Education but also by the United States Office of Education that it was continued for subsequent funding periods. The evaluation of Title VI programs for the school year 1968 to June 1969 was also conducted by Teaching Research, a Division of the Oregon State System of Higher Education. The report of that evaluation is contained in **Impact 2 of the Title VI Programs in the State of Oregon.** The summer programs for 1969 were evaluated by the Special Education Department of the University of Oregon. The report of that evaluation is contained in **Impact 3 of the Title VI Programs in the State of Oregon.**

After the projects have been selected for funding by the Advisory Committee in September of 1969, research consultants from the Teaching Research Division and the Coordinator of Title VI programs within the state, met with each of the project directors prior to the commencement of the project. The purpose of this meeting was to finalize an evaluation plan for the particular project. This final evaluation plan entailed the determination of which measurement instruments were to be used and the method of conducting the measurements with these instruments.

The same procedure of meeting with the project directors was followed for those projects which were funded for the summer period.

During the school year, Teaching Research consultants visited each project twice to insure that the evaluation procedures were being provided for as planned. Special Education consultants of the State Department of Education visited projects associated with their specialty, not only serving as advisors to project directors in the conduct of the project, but also concerning themselves with the progress of the evaluation. Finally, the Title VI Coordinator visited each of the projects as a further check to insure that their progress and evaluation procedures were proceeding in accordance with plan.

A like procedure was followed for the summer projects, although Teaching Research consultants were able to visit each of those projects only once.

After the final report of each project was prepared and submitted by the project director, the results were examined, treated statistically where necessary, and determination made as to how successfully the project achieved its stated purposes. The results of that determination are reported herein.

The cost to the state for this Third Party Evaluation by the Teaching Research Division was $7,800, which included not only the initial planning with project directors and visits to project sights, but also the drafting of this report, including computer usage for statistical computations.

Results and Discussion

Twenty–three projects were funded during the fiscal year 1970, (September, 1969 through August, 1970). One project was funded for the entire school year, 13 were funded for the academic year from September to June, and 9 were funded as summer projects only. Four of the projects were primarily educable mentally retarded, 9 were trainable mentally retarded, 2 could be listed as speech impaired, 2 as hearing impaired, 1 each for visually impaired/multiply handicapped and emotionally disturbed and 3 could be listed as learning disabled or culturally deprived. Seven hundred and seventy–three children were served in these projects. By far, the largest number of handicapped children served were those with hearing impairments. Over 327 children were either diagnosed or treated as a result of Title VI projects funded this year. The next largest number of children served were trainable mentally retarded children, 146. One hundred and nineteen speech impaired children were treated, 72 educable mentally retarded children, 81 learning disabled children. Eighteen who were classified as multiple handicapped were actually both blind and deaf and were identified as children impaired as a result of a former rubella epidemic. Eleven were emotionally disturbed and 9 were visually impaired. The total cost for this entire program was $213,125. This averaged out to $276 per child.

As has been mentioned, projects were funded for both summer and academic year periods. One project was funded for the full year. The quality of the full year project and the academic year projects were in general, far superior to the quality of the summer projects. Few of the winter projects could be faulted, although minor discrepancies were noted by the Third Party Evaluation Team. In no case were the discrepancies considered serious.

In fact, many of the longer projects had notable features which may have far reaching implications for special education.

For example, in Eugene, a classroom manager concept was tried which entailed a resource person working with regular classroom teachers so as to maintain educable mentally retarded children in a regular classroom. The success of this project indicates the necessity of further experimentation with this type of concept, for this may well be the forerunner of an alternative to special classes for educable mentally retarded or extreme learning problem children.

In Parkrose normal children were included in a class for children who were classified as behavior problems. Although the influence of the normal children on the behavior problem children was inconclusive, there were indications that in the three or four months after the conclusion of the project many more of the behavior problem children would be returned to their normal class. The project director indicated that this may have been a result of the influence of the normal children, who were used as models for the behavior problems children. An interesting aspect of this project was the fact that these children who were utilized as models in this class had learning difficulties which were largely remediated by the structure provided in the behavior problems class. In general, then, this program also seems to point perhaps to a different configuration of our special education classes.

In the Retarded Children Center in Aloha the utilization of a speech therapist for language training demonstrated significant improvement in the language abilities of severely handicapped children. For a number of years now there have been many recommendations to have speech therapists move more actively into the realm of language training. Here is a project which demonstrated that such a movement could produce significant results in children. This project should serve once again to change the configuration of special education services.

In the Beaverton School District severely hearing impaired children were integrated into a regular school setting and achieved success.

At the Opportunity Center in Redmond significant advances in reading ability were made by trainable mentally retarded children as a result of a music program. This music program provided music as a reinforcement for the children when they made the correct responses. This new teaching technique indicates an area for further investigation and a

possible modification of the scope of academic training which we might provide for trainable mentally retarded children.

In Harney County the configuration of special education classes also changed. Trainable mentally retarded children were combined with children with dyslexia. Results were excellent.

Another trend in special education was noted in at least three of the projects. Parents were involved to a much greater degree in the education of their handicapped children. Two projects, one in Corvallis and one in Coos Bay, were devoted entirely to this concept, and although neither of them offered conclusive results, both provided strong evidence for the value of this undertaking. In the EMR project in Eugene, the involvement of parents also indicated that they could be used successfully to teach their children. This is an area which requires even further investigation and further sophistication, for the potential may be great.

Pre–school education was emphasized in two projects for two different types of populations. For the trainable mentally retarded, actually multiple handicapped, the project in Medford demonstrated that significant improvement could be made with young, severely handicapped children in a structured school environment. In the program at Lake Oswego, it was found that the Distar Reading Program may be an excellent approach for very young EMR children.

The Lake Oswego program also attempted to identify potential learning problem children prior to their entry into the first grade. Although the general results of the project indicated that the de Hirsch screening device does not appear to identify potential reading failures at the first grade level, this negative finding may have important implications for the efforts of special educators.

Two other projects should be mentioned because of the service which they provided children and because of the procedures which they are developing. The deaf–blind project in Portland showed definite progress in the children served and also incidently pointed up the need for working closely with parents.

The other project worthy of special mention which received the least amount of money for an academic year, was located at Prospect. Eleven children who were identified as learning disabled were taught by a special teacher for $2,240 for the year. The results achieved by the teacher demonstrate amply the effectiveness of teaching by behavioral objectives. A statement by that teacher is worth repeating in this general section:

> "If I knew 20 years ago what I have learned during this project about teaching by behavioral objectives, I could have changed academic lives of many more children when I was teaching in Los Angeles."

The summer projects do not have the same wide range of outstanding features to commend them. A few provided indications of services needed, although in themselves made only minor impacts on the children they served, primarily because of the short span of time. A project for the visually handicapped in Lane County indicated the need for providing self–help training for the visually handicapped. A parent training project in Coos Bay indicated significant results during the project, but whether or not these were maintained after the summer project is not known. The pre–school at Emily School indicated a strong beginning, but again this project would have been better funded for a longer period. The Scappoose Summer Speech Program indicated a need for this type of service in Scappoose. Although the hard data collected was minimal, a positive trend was indicated. Two projects devoted themselves to camping experiences for the mentally retarded, one at Bend and one at Camp Civitan. Staff of both projects conducted them well, but the amount of time that the children were able to spend at the camp in both instances prevented any significant results. An ancillary benefit of the summer program at Camp Civitan might have been to spur the Oregon Association for Retarded Children, interested school districts, and interested service clubs to refurbish Camp Civitan so that it can be utilized as a year round location for camping and outdoor experiences for the mentally retarded throughout the State of Oregon.

In general, therefore, the Third Party Evaluation Team believed that the money spent and the effort made on the year long project and on the academic year projects were well expended. Significant improvements were shown with children; new teaching methods were tried and proved successful; new configurations for special education were tried and proved worthy of further test. In general, therefore, the projects foreshadow significant improvements in the field of special education.

The Third Party Evaluation Team as a result of this round of evaluations, supports the action of the Oregon Board of Education that summer Title VI projects not be funded, except in rare instances when sufficient time can be spent with the children to make an impact in thier development or education.

A recommendation from the Third Party Evaluation Team to the Oregon Board of Education is that consideration should be made for continuing to provide experimental models in the field of special education. These experimental models may well lead us to new ways to educate children with handicapping conditions. Certainly the results of this Title VI evaluation period indicates such results are possible.

A word must be said about the educable mentally retarded. This population by far is one of our largest handicapped populations, and yet received a relatively small proportion of the funding. The classes that service this population have also come in for the most criticism in the field of education, having failed to produce the type of results expected. It seems, therefore, that experimentation in this area might be especially fruitful in future Title VI projects.

A further word should be stated about the 146 trainable mentally retarded children listed above. The Third Party Evaluators, during the course of the year, became more and more convinced that although these children technically fall under the definition of trainable mentally retarded children, the Third Party Evaluation Team could find few of them who could not be classified as multiple handicapped. For instance, no mongoloid child could be discovered who did not have at least one of the following disabilities: vision impairment, hearing impairment, speech impairment, serious heart condition, or other physical impairment. Thus, all could fit the classification of multiple handicapped and might better be described as developmentally disabled.

One of the recommendations, therefore, of the Third Party Evaluation Team is that the categorization of trainable mentally retarded be eliminated as a category within the State of Oregon and within the Title VI legislation of the federal government. It is recommended that the nomenclature of all classes serving children now so identified be changed to classes for the developmentally disabled. Although this action would require a change in legislation as presently sponsored by the Mental Health Division of the State of Oregon, such a change could be adequately supported by an examination of the etiology and present physical and mental functioning of the children in the presently labeled trainable mentally retarded classes.

The Third Party Evaluation Team believes, as a result of observation, since the inception of Title VI projects in Oregon, that the stringent evaluation measures that have been applied to the Title VI programs have resulted in a steady increase in the quality of these programs. This increased quality has resulted in a greater impact on the children served and has had, as indicated by the experimentation conducted this year, potential impact for the structure of special education. Therefore, since evaluation has served such an important part in the success of the Title VI programs within the State of Oregon, it is believed that it is incumbent upon the *ad hoc* committee which recommends funding for these projects to attend to the quality of objectives submitted in the Title VI proposals. All objectives submitted should be stated in behavioral terms. It is only through this type of objective that an adequate evaluation of the results can be achieved. If necessary, the Third Party Evaluation Team should be called upon to assist the *ad hoc* committee in delineating behavioral objectives. This might be accomplished by a review of the proposals by the *ad hoc* committee and the Third Party Evaluation Team with the goal of pinpointing those objectives which do not meet necessary criteria.

In general, therefore, one must reach the following general conclusions relative to the impact of the Title VI program within the State of Oregon for fiscal year 1970.

1. The summer programs were generally not effective, although they did indicate a need for services on a full time basis in certain school districts.
2. Many of the projects indicated a different model for special education services. These new models generally combined populations of handicapped children and indicated that the segregation of handicaps is not necessary for effective education.
3. Pre–school education was adequately demonstrated as necessary for handicapped children.
4. Individualized programming produced the most significant results with children.
5. There is an indication that trainable mentally retarded children should be categorized as developmentally disabled since they are invariably multiple handicapped.
6. There is an indication that parent training may be a very effective means of enhancing the education of all handicapped children.
7. There was evidence presented that the curriculum for trainable mentally retarded children should be re–examined to determine if more emphasis might not be made in some academic areas, primarily language and reading.
8. There was indicated a need for all project objectives to be stated in behavioral terms.

Long Range Results

Any evaluation of a federal program should rightly include an analysis of the long range results achieved from the federal funding. This analysis cannot be completed at this time. However, a survey is underway to determine what lasting results the funding of indivdiual Title VI projects has within the school districts in which they were funded.

A sampling of the returns to date, indicates that Title VI programs initially funded by the federal government through the Oregon Board of Education are often continued by school districts, thus achieving a lasting benefit to handicapped children within that district. Some of the statements from the school officials are enlightening:

> Mrs. Iris Schuler, Director of Special Education, Washington County Intermediate Education District: "The educational program for the hearing impaired for the Washington County (started as Title VI project No. 53 in 1968–69) was continued as a service of the Washington County Intermediate Education District as directed by resolution of our 13 local school districts serving a school population of 40,000 students."
>
> Darrell Muller, Director of Research and Development, Pendleton Public Schools: "Pendleton School District 16R received funds from ESEA Title VI for two summer projects . . . . Both of these projects focused on involving EMR students in meaningful summer activities available in the Pendleton area (in 1968 and 1969) . . . As a result, EMR students were participants in 1970 summer programs available in Pendleton School District 16R with respect to their age and interest rather than their handicap. Our district hopes to continue this type of involvement with EMR students."
>
> Thomas J. Walker, Superintendent, Coos County Intermediate Education District: "Project No. 7, 109 and 110 have involved clinical speech therapy programs in the summertime. They proved to be so effective that Coos County now has a regular speech therapy program throughout the school year. Four therapists hired by the I.E.D., along with two in a local school district, provide adequate coverage in speech therapy for school children in Coos County . . . I am sure that Coos County school children would not have clinical speech therapy on a regular basis if the Title VI projects had not clearly indicated the need."
>
> Alan Olsen, Director of Special Education Instruction, Marion County Intermediate Education District: "The summer 1968 project No. 34, 'Pre–school and isolated speech and hearing program' has been continued by local funds . . . The pre–school program has been extended . . . Greater services have been provided during the regular school year by I.E.D. funds."
>
> Richard Metzler, Supervisor of Special Class Programs, Springfield Public Schools: "Our project No. 91 for the summer of 1969 was a comprehensive recreational program for the trainable retarded carried out by a Pearl Buck Center. The impact of this program resulted in the center hiring a full–time recreational specialist to work with these children year 'round."

Project Title:	*Special Program for Young Deaf–Blind Multiple Handicapped Children*
Type of Project:	*Deaf–Blind*
Location:	*Portland*
Funding Allotted:	*$27,247*
Number of Children Served:	*18*

Background and Rationale:

This project is designed to provide developmental opportunity for young multiple handicapped children who have been diagnosed by the Crippled Children's Division or other qualified medical facilities as having a significant auditory and vision loss.

Evaluation of prior projects have shown that these children do profit from early education and have achieved significant gains. It is most important that these gains be maintained and expanded through specific training programs. For some of the children this type of ongoing program will be made possible from the Regional Center for Deaf–Blind. However, because of monetary considerations, the Center will be unable to give service to all children who qualify. This project was to provide, therefore, meaningful developmental activities for a small but significant group of children for whom no service is available.

Objectives:

1. To allow each participant to make optimum use of all remaining senses in all appropriate activities in which he is involved.
2. To have each child show growth in the ability to communicate as measured on narrative reports, checklists and precision teaching data.
3. To enable participants to move about freely and independently within their ability to do so.
4. To have each child be able to be aware of and respond to objects and persons in his environment.
5. To help each child acquire appropriate self–help skills in the areas of toileting, eating, and dressing.
6. To have children improve their motor skills.
7. To decelerate undesirable stereotyped activities.
8. To assist parents and guardians to interact successfully with their children.

Methodology:

Since special training for deaf–blind children needs to be on a one–to–one ratio, the teachers of deaf–blind worked during the school year on an itinerant basis, visiting each home, giving instruction to the child, and providing parent guidance in reinforcing the educational program. Each child received four or five hours of individual instruction a week. The summer project was a day school program. A monthly meeting of all parents and parent surrogates was held.

Instruction emphasized the use of all sensory modalities to the extent that they can be made functional for learning pre–language skills. A variety of sensory training activities was provided to stimulate the use of the senses in an expanding environment and to motivate a desire to communicate.

Stimulation of all sensory modalities was utilized extensively in order that the sensory input can be made more functional and meaningful. This involved a close working relationship with the staff of the Crippled Children's Division, the Outpatient Pediatrics Clinic and the Children's Eye Clinic at the University of Oregon Medical School and with the Portland Center for Speech and Hearing.

Evaluation Plan:

It was agreed that a developmental checklist was to be prepared on a pre– and post–test basis with an additional checklist being prepared midway between those two measures on the children who were treated in the home during the academic school year. In addition, an anecdotal summary would be included for every two week period. For the summer school program, the developmental checklist was to be given on a pre– and a post–test basis for the children who did not participate in any program during the school year. The post–test of the children who participated during the academic school year was to serve as the pre–test measure for the summer program.

Results:

The results of this project must be reported, child by child. These children are so severely handicapped that the progress must be measured in minute steps. Objectives for each of the children were different, depending upon the child's present level of functioning.

The following children participated in the program during the whole year. Results achieved with these children follow:

Child Number One. This child had congenital cataracts that are caused by rubella. She possessed sufficient vision for lip reading instruction. She was integrated into a nursery school with normal children during the first half of the school year. After the Christmas holiday, she attended the nursery school three days a week and the Hosford School for the Deaf Pre–School twice a week. During the summer she attended the Washington School for the Blind, a residential summer school for

deaf–blind pre–school children. This child's behavior consisted of rather extensive tantrum behavior at the beginning of the year. However these behaviors extinguished after she began attending the Hosford Center for the Deaf. At the conclusion of the year she was attentive, interested, eager and cooperative in school activities.

In reference to attention to stimuli, this child showed a confidence with most task objects. She chose her own task at the Hosford Center for the Deaf -- puzzles, picture books, legos, pounding materials, etc. She needed some help to perform tasks such as puzzles; otherwise she would sit at the table looking about the room. She developed techniques of finger painting, brush painting and utilization of clay. In the beginning she required M&M rewards on a continuous reinforcement schedule. However, she progressed to the point where praise was sufficient on a continuous reinforcement schedule.

In communication and auditory training this child learned to drop blocks into a basket in response to the beat of a drum within or beyond her vision. She learned to drop blocks in response to a bell rung within her vision. She learned to imitate the teacher, opening her mouth, sticking out her tongue, smiling, slapping, holding up the thumb, holding out one hand, holding out two hands, lifting up one leg, standing, sitting, sitting on the floor, and waving her hands.

She used hand gestures to communicate her desires for a specific toy. She learned to point to the food of her choice at lunch time. She was beginning to understand the meaning of nodding her head "yes."

She learned to look in the area of the teacher's lips, to an object, reward, or a finger pointed to them.

She will make loud vocal emissions to call attention to her and make a popping "p" sound when she is excited or angry.

In reference to living skills, the child learned to use the bathroom independently. She could wash her hands, utilizing soap, towel and washcloth. She was able to carry her chair to the various learning centers and was able to take off her coat and hang it on a peg and could reverse the procedure when the proper time came. By the end of the period she had learned to peddle her tricycle.

The child enjoyed the wide selection of free play activities. She was competent in all permanent outside play equipment.

Child Number Two. This child has congenital cataracts and glaucoma. Her visual acuity is good enough for group lip reading instruction. She is moderately deaf but is improving in sound awareness and discrimination. She has cerebral palsy and a heart murmur.

At the beginning of the period her speech consisted of ah and bah. She could produce both fairly well. The teacher decided to use red and yellow objects to elicite the sounds. By November she had acquired a third sound, m. By January she was still not giving the correct sound for the correct color, but was uttering the sounds much more clearly. By February she knew the appropriate sound for the color presented and was able to produce from 22 to 50 sounds. By April objects were beginning to be substituted for the speech sound instead of a color. For instance, ball was used for bah and apple for ah. The child did not understand the concept of particular sounds for a particular word. The best score was 14 out of 22 trials, which is only slightly better than chance.

Auditory training was conducted through the use of rhythm instruments. No significant improvement was noted during the year.

In reading she was able at the beginning of the period to match three objects to the three letters initially. By March she had eighteen words but confused such words as car and cat, cat and car at times.

In other work she matched dots to buttons but she did not know the order 1, 2, 3, 4. This child was very shy and reserved and disliked being wrong.

Child Number Three. This child seemed to have a central neurological problem or failure to use vision due to emotional and stimulation deprivation. She also appears to be deaf, perhaps for the same reason. She has cerebral palsy. This child received home teaching when she was in a foster day care home for this purpose. Her parents did not want the teacher to come to their home. These were decidedly unsatisfactory circumstances, which doubtless contributed to slow development.

For auditory training she wore the phonic ear without complaint while listening to children's programs. She would make subtle behavioral changes with the mood of the program. She learned to respond to bells, rattles, squeaky toys by reaching, turning her head, and smiling.

She responded to a toy placed on her work table by picking it up and dropping it back on the table. She repeated these actions over and over. In working with the post of rings she quickly learned to unstack the post. She could move smoothly from one ring to the next and drop the rings onto the table. She did not learn to restack the post. In working with large pegs she was able and willing to remove the pegs and drop them on the table. She could locate a peg without help and at the end of the period was beginning to make an effort at replacing the pegs in their correct holes. She learned during the period to unstack a column of bells.

In relation to her eating habits she preferred strained food, although she learned to accept whole vegetables, cracker pieces, bread cubes, soup, and soft boiled eggs during the year. All of these latter could only be presented in small amounts.

She would grasp the spoon only to drop it upon the table at the beginning of the period. By the end of the period she was holding onto the spoon handle unaided, placing and withdrawing the spoon from her mouth and retaining her grip on the spoon until the teacher would help her scoop additional food. The only food she would eat with a spoon was strained fruit.

The child was removed from her baby bottle toward the middle of the year but resisted drinking from a cup at first. During the last two months of school her acceptance of a cup or glass steadily improved.

Her communication is limited although she learned to respond to vibration commands to "stand up" and "roll over" 95% to 100% of the time during the program. She speaks approximately 10 words but began to babble happily in May. She responds by laughing when she hears her name. The child progressed in her walking from walking slowly holding to the teacher with one hand only to walking without encouragement holding onto furniture and walls. She would not walk outdoors initially, but now walks outdoors without complaint. She scoots and crawls in acceptable manner. She was able to stand at the beginning of the period only when next to a solid object. Towards the end of the year she was able to stand not maintaining contact with those objects.

During the program she was introduced to outdoor play equipment, which she resisted. By the end of the year she showed signs of relaxing upon the swing. There was little accomplishment in toilet training during the year. The child was able to remove her coat, shoes and socks.

Child Number Four. This child has possible central optic atrophy caused by rubella. He has light perception only. He is moderately deaf. At the beginning of the period this child was confined to his crib away from the scene of activities. At the end of the period he was found more often than not in the living room dressed, fed and occasionally wearing his hearing aid.

At the beginning of the year this child was more concerned with manipulating objects than picking them up and dropping them. During the year he learned to unstack rings without complaint or aid. He could not restack the rings without help. He learned to remove pegs and could often locate pegs without help. He learned to enjoy shaking a can of beads or blocks and became willing to place beads in the can with help. He did pick up, carry, and place an occasional bead in the can.

In regards to communication training, he learned to respond 100% of the time to the vibration command of "stand up." He would roll over after being physically directed to roll. He tolerates his hand upon a speaker's cheek and enjoys being held closely while you speak. He learned to tolerate wearing the phonic ear phones up to 10 minutes. This was discontinued in January upon the recommendation of a physician. He learned to tolerate wearing his hearing aid throughout his lessons.

He made slow progress in walking. He still desired to walk in a semi–squat position. He had good balance and was physically able to walk at a good pace for 20 to 30 feet while holding onto his teacher with just one hand. He could stand alone without support on brief occasions. He seemed afraid in this posture and sat slowly and carefully down. He began to crawl and creep cautiously about the house towards the end of the school year.

He learned to utilize outdoor play equipment often sitting alone and holding on by himself. He became proficient on the swing, the teeter–totter, the merry–go–round, and could climb the ladder of the slide with aid and slide down by himself.

At the beginning of the period there were no successes with toilet training where he now frequently goes to the toilet when placed upon it, although he must be caught.

He can place the spoon in his mouth although he cannot fill his spoon unaided. He will finger feed some food, such as a banana and a stick of licorice. He does chew. He can drink from a cup with help and he has been on a bottle most of the year. He can undress himself if given a lengthy opportunity. He will search for sleeve holes and lift his legs for pants. He does not object to pulling on clothing with adult help.

Child Number Five. This child has congenital cataracts caused by rubella. His visual acuity is improving with use in more appropriate activity; his hearing is improving in discrimination and production of sounds. The child is homeless. He was placed in a foster home. This child will without direction climb out of the school bus, close the bus door, turn himself about or walk up the sidewalk in steps to the school carrying a bag of spare clothes. He could not learn to unlatch the school door, but did learn to pull it open, enter, and close it behind himself. With a reminder he would hang his bag of extra clothes on a post. He could pull his arms from his coat sleeves and made an effort to place the sleeves upon the coat hanger. He learned to hang the coat hanger with his jacket upon the rack and was capable of removing his coat from the hanger.

He learned to drop 20 blocks into a can and to remove them one by one or by turning the can upside down. He learned to unstack a post of 11 rings and restack them. He could remove pegs from a board and with direction would place them in the container. He can insert pegs into the board in a random pattern. He was able to work with puzzles of four to five pieces successfully. At the beginning of the program he screamed and fussed over finger painting and his hands had to be forcefully manipulated in the paint. By the end of the period he learned to move his fingers about freely in the paint independently, smiling and laughing.

His behavior progressed from screaming and fussing considerably in September during his daily school activities. By the end of the year this behavior had extinguished and was evident only when introduced to new media or new activities.

In regards to communication he learned to vocalize when offered his initial graham cracker in the morning. He would take the teacher's hand or shove her body to the toy or other object of his desires which he was unable to obtain without help. He reacted to his name and the word "no" when spoken loud and sharp. He responded to the vibration commands of "turn on the light" and "turn around."

In auditory training he learned to sit in his chair calmly as songs and body plays were experienced. He occasionally made sing song "oohs" as the children sang. He hit blocks together independently in time with records. He danced to records with help and learned to spin like a top upon the floor in appropriate time with the record music. He learned to play musical sounds upon the toy xylophone with a wooden hammer. He was responsive to environmental noises such as thumping upon the slide and the merry–go–round.

No real progress was made in the area of toilet training. He did however begin to show unhappiness over being dirty or wet.

During the period he developed a broad span of free play activities, both indoors and outdoors.

Child Number Six. This child has optic atrophy due to rubetta. Her visual and hearing acuity has not been determined. She has cerebral palsy, which affects the lower half of her body.

This child's greatest gains were in the area of behavior. She was reluctant to accept outsiders at the beginning of the program but she progressed to the point where the teacher felt that she was anticipating her visits. She controlled her adult family with her temper tantrums, but she soon realized that the teacher ignored these types of behavior.

In auditory training she was conditioned to the ear phones gradually and she reached a tolerance level of 10 to 15 minutes. She reacted to the ringing of bells and other noises usually by lifting her head.

She could unstack rings after her hand was placed upon them. She never managed the entire stack and achieved an average of unstacking four rings. She could pull apart a stack of bells if the teacher held on to the base. She achieved six bells on the average. Most toys were placed in her mouth although she enjoyed shaking rattles and other noise makers.

In communication she responded to the vibration command, "hold your head up" 75% of the time. She also recognized a ringing bell and a tap on her forehead as a signal to ring the bell.

During the period she became able to sit up in her chair, balancing herself with one arm upon the table. She also became able to sit for a minute in a cross–legged position upon the floor, maintaining her own balance. Holding her head upright improved during the program. She became able to pull her body forward upon the floor with her arms and, when placed in a crawl position, she could push her body with both arms and legs. She could push up on her arms and legs when presented a strong stimulus. In toilet training and eating skills the mother submitted to the child's temper tantrums, and so little progress was made in these areas.

Child Number Seven. This child has congenital cataracts caused by rubella. His visual acuity might develop sufficiently enough for lip reading. He possesses a moderate hearing loss.

This child began the program by walking backward only and would only walk to light or a balloon. His balance was poor. He could however walk holding onto hands for about 50 to 60 steps. At the end of the period he was able to balance and walk holding on with one hand and he learned to sit and hold himself on a tricycle. He also learned to walk without the light, which was utilized for reinforcement to motivate walking.

In auditory training he gave perhaps some attention to music and would occasionally wear a phonic head set but he made no response to sounds or vocalization.

In speech training he allowed his hand to be put on the teacher's throat but gave no vocal response. Advancement was made to where he would put his hand voluntarily on the throat for speech. However, he never progressed beyond the point where he could only sometimes pay attention to the teacher's lips and face. He never imitated sounds.

During the period he learned to take rings off the stack and was able to manipulate up to 15 rings. He was also able to take out about approximately 12 pegs. Little progress was made in eating. He would only eat from a spoon and not from his fingers. He would only eat if juice were present.

Child Number Eight. This child functions as if her vision was very limited, but the diagnosis has not been fully determined although apparently her defects are caused by rubella. The hearing diagnosis is also unconfirmed.

This child apparently received very little stimulation at home except when the teacher was present. The teacher usually found her upon the couch asleep holding her bottle or awake drinking from her bottle 95% of the time upon her arrival into the home. The mother would awaken her if necessary and dress her for the lesson.

She uses her hands poorly. She has developed fixations for metal objects and has little productive interest in toys. She could and would dump blocks out of the can but made no effort to place blocks into a can. She was able to sit at the table and remove pegs from the board. She would replace them with direction and with fussing.

This child communicated her dislikes with a display of temper. She rarely smiled or laughed to show pleasure. There was no reaction to her name or to affectionate speech.

In auditory training she laughed and enjoyed the stimulation of a squeaky mouse but seemed unaffected by the ringing of bells.

She learned to walk shortly before the teacher began working with her. During the period her walking became more stable and she learned to accept assistance from a human hand. Towards the end of the year she began to walk freely about the park, rarely falling. She no longer crawled away from a fall, but began to stand herself up and resume walking. She was able to climb up onto chairs and quickly transferred this technique to climbing in and out of cars. She learned to ascend and descend stairs upright using

the teacher's hand as a support. She was beginning to use hand railings.

She enjoyed swinging and learned to climb the slide ladder without help but did not learn to control her slide speed. She enjoyed the merry–go–round and she enjoyed being bumped on the teeter–totter. She could hang from her hands briefly from the monkey bars.

This child's mother had no interest in helping her progress in toilet training and so consequently she wore diapers.

She would push her arms in and out of her jacket but her mother generally dressed her in a prone position, as she would a baby. The mother is convinced that the child is unable to chew solid food or receive adequate liquids from a cup. She therefore feeds the child strained baby foods and provides her with a bottle. Little progress was made in eating.

The child began to show an increasing awareness of other children during her visits to neighborhood parks. She did not interact with them however. She seemed to show greater enjoyment in swinging or other park activity when other children were near.

Summer Program. Eighteen additional children were seen during the summer months. It should be recognized that the period of summer training was relatively short, lasting in most cases less than 4 weeks and at the most 6 weeks. Therefore, significant progress could not be achieved during this time.

An examination, however, of the counseling which was afforded the parents indicates that this was a valuable program in order to provide parents a much needed area of expertise. A sample of some of the advice given to parents follows: One mother was given a sheet of paper with suggestions to help her further develop her child's language acquisition. For instance: "1) Begin teaching him "hi," "bye–bye,' "no–no," by using appropriate gestures of the words. 2) When doing a continuous activity such as rocking in a chair, walking, etc., play a game of "stop," and have the child resume the activity by saying "now let's walk, walk, walk or rock, rock, rock." 3) When you offer the child something and he turns his head away, verbalize how he feels ("You don't want milk'). However if he really wants milk, wait until he vocalizes, then give it to him when he does. 4) Teach the child to understand speech by teaching him certain commands as ' hold out your hands" before carrying him. If he does not hold out his hands, then show him how it is done and you hold out your hands."

The above types of instruction were given to six sets of parents in language and hearing evaluation sessions. In the other 12 instances the children attended school and attempts were made to have them progress in the same manner as the children who received the full year program. The children who attended school received routine instruction in having them manipulate shape sorting boxes, pegs, rings. Efforts were made to have the child respond to vocalization and to auditory training. In some instances small amounts of progress were noted.

Third Party Evaluator's Comments:

This program, which has been continually funded under Title VI, has demonstrated significant progress with children over the years. Since these children are so severely handicapped, and since parents are at such a loss to know how to proceed with such handicapped children, all the progress that is noted with these children must be credited to this program and to the teachers involved.

This progress is amply demonstrated in the case of the eight children who received training throughout the school year. These children showed improvement in many areas, and although the amount of gain may seem small to those who are uninitiated in the problems of deaf–blind children, this progress must be considered as significant advances in their education.

Although no detailed recounting of the individual progress of the eighteen children who were administered during the summer program is contained in this report, a summary statement that this progress was slight essentially describes that program. Nothing more could have been expected. A summer program of this type can only be considered as introductory to these children and to the parents of these children. The teacher's comments with the parents, the language and hearing evaluations, and the programs prescribed for the parents indicate the need for further interaction with the parents so as to continue instructing them in how to cope with their handicapped child.

The instruction provided by the teachers was adequate as far as it went. More intensive training sessions are required if greater progress is to be made with these children. Since the teacher is spending such a small amount of time with the child each day, the greatest progress can be made in the home. Techniques have been developed – and within the State of Oregon – that could be utilized to instruct these parents in techniques of teaching their child specific skills in the home.

The third party evaluation team must make one recommendation for the future conduct of these types of programs. Behavioral objectives for each of the children in the program should be specified. These behavioral objectives should be verbalized in terms of terminal objectives and in terms of intermediate objectives. If these are clearly stated, not only for the teacher's benefit but for the parents' benefit, specific programs to achieve these objectives might be more apparent to the parents and greater cooperation might be elicited from them.

In general, however, one must only voice unlimited praise and admiration for the progress which this program has made for the children it is treating. It is by far one of the most worthwhile Title VI programs.

Project Title:	*A Language Development for Trainable Mentally Retarded Children*
Type of Project:	*Trainable Mentally Retarded*
Location:	*Aloha*
Funding Allocated:	*$5,600*
Number of Children Served:	*20*

Background and Rationale:

Results of a previous Title VI project conducted at the Retarded Children's Center in Aloha indicated that it was possible to increase the frequencies of meaningful expressive language of TMR children in a clinical setting, but there was no apparent generalization of learning from that setting into the classroom. It was felt that increases in expressive language within a clinical setting were insignificant without carry–over into the classroom.

However, it was noted that random reinforcement of spontaneous, meaningful expressive language behaviors in the classroom would tend to accelerate that behavior and as the child's expressive language behaviors increased his speech became more intelligible. In order to significantly increase this language behavior in the classroom setting, it was believed that the best use of the speech therapist would be to have her implement language development programs in the classrooms and have her train teachers and volunteers to reinforce meaningful language as it occurred in the classroom setting.

These two latter findings; that is, that random reinforcement of spontaneous, meaningful language behavior in the classroom would tend to accelerate that behavior, and that the best use of the speech therapist would be to have her implement language development programs in the classroom, formed the basis for the present Title VI language development project. The project intended to demonstrate that language development of TMR children could be improved by having the speech therapist work directly with the classroom teacher in designing and implementing language programs in the classroom.

Objective:

To increase the quality of functional language by implementation of individualized programming based upon developmental levels of receptive and expressive language.

Methodology:

The project was conducted from October 1, 1969 to May 30, 1970. Twenty children were selected to participate in the program and they ranged in CA from 4 – 17. All of the children were diagnosed as TMR and an attempt was made to include children with a variety of expressive language abilities. Three were non–verbal five were extremely unintelligibile, two were considered to have the best expressive language in the school and the remaining ten demonstrated speech and language abilities considered typical for the school.

In order to gather baseline language data, prior to initiating the program each subject's present language level was assessed. Three separate instruments were used to make this assessment. The *Speech and Language Assessment Form*, developed at the Center last year, was used as a measure of receptive and expressive language. The *Test of Auditory Discrimination*, developed by the speech clinician at the Center, was used to assess each child's ability to attach meaning to sounds and to discriminate among words. Test items required the child to discriminate between sounds presented in pairs or series of three as well as between words. Also included were items structured to assess each child's ability to retain and give back specific information (auditory memory span). The *DIP Test* (Discrimination by Identification of Pictures) was included in the verbal discrimination part of the test and was used to measure each child's ability to discriminate between like sounding words. This entire test, with the exception of the items measuring auditory memory, was taped in an effort to standardize the presentation. Finally, an *Articulation Test* was administered to measure each child's ability to produce specific speech sounds in the initial, medial and final positions in words.

All of the above tests were administered by the speech clinician and a speech aide. Random reliability checks were conducted between the clinician and aide to insure valid assessment. The following three procedures were used to standardize the presentation of all test items; (1) each item was presented no more than twice (auditory discrimination items were presented only once); (2) no visual or verbal cues were offered except those necessary for the completion of a particular item; and, (3) no reinforcement was dispensed for correct answers.

In addition to these three language measures, samples of each child's spontaneous expressive language were taken during six, 20–minute unstructured classoom periods. A variety of materials including toys, pictures, and books, was made available for the purpose of stimulating speech, but no attempt was made to elicit verbal responses, and no reinforcement was given for any response during these baseline sessions. These sessions were considered unstructured in that no verbal response was demanded of any child. The speech clinician sat with a group of five

children and recorded verbatim on tape each child's responses, along with the name of the child who had just spoken. The tapes were in turn edited by a speech aide, who was trained for this task. The speech aide evaluated each child's verbal responses for length and complexity. Length was determined by the Mean Length of Response (total number of words divided by the total number of responses). A response was defined as the words a child used each time he verbalized. Only intelligible responses were recorded. A count of the individual's unintelligible responses from each session was also kept; an unintelligible response was defined as one which could not be understood verbatim. Complexity was determined by a type–token ratio (number of different words divided by the total number of words). Length, complexity of responses, and percent of intelligible responses were graphed from the six sessions and used as baseline data against which growth in expressive language could be measured. In an effort to insure reliability of the taped samples, the speech clinician and the speech aides conducted random reliability checks on both the taping of verbalizations and the editing of the tapes; in all instances, evaluations made by the aide correlated with those made by the clinician.

After this initial screening was completed, scores were analyzed by categories to determine which competencies each child possessed. Once each child's functional language abilities had been determined, individual programs stressing the development of receptive and/or expressive language were prescribed by the speech clinician.

The prescriptions made by the speech clinician were implemented in the classroom by the teacher or a volunteer aide. Both the teacher and aide had been trained to carry–out the prescribed language lessons. This training included the utilization of a prescriptive teaching model that specifed individual programming to coincide with the assessment of each child's particular receptive and expressive language level. Also, training in shaping expressive language through reinforcement was provided.

Children who demonstrated low abilities in receptive language and auditory discrimination were placed in a program to improve their competencies in these areas. Six children from the group were assessed at this low ability level, and they were scheduled for two formal language sessions per day. One of these sessions was with a group in the classroom and the other was on a one–to–one basis with a volunteer aide.

Fourteen of the twenty children exhibited higher language ability and were programmed for concept training. These children were placed in groups of from two to five and were scheduled for one, 20–minutes language session each day. Correct responses required verbalization as well as demonstration of the concept taught.

In addition to the individualized language lessons, all children were reinforced during the day for using larger, more complex verbal responses and for expressing any of the concepts taught during the formal language lessons. This program was individualized in that a child was reinforced for using longer, more complex verbalizations than he had demonstrated at the initiation of the program. In the case of non–verbal children, reinforcement was given for attention to the speaker and for any attempt at verbalization.

Evaluation Plan:

The three language tests: *Speech and Language Assessment Form, Test of Auditory Discrimination,* and the *Articulation Test* were administered on a pre– and post–test basis in order to assess language growth as measured by these devices. Continual evaluation of a child's expressive language abilities was accomplished by taping, on a bi–weekly basis, samples of his verbal responses in the classroom setting. Procedures for taping and evaluating the tapes were the same as for the baseline sessions, except the spontaneous, intelligible responses were reinforced intermittently with praise and/or tokens. As in the baseline sessions, length, complexity of response, and percent of intelligible responses were graphed for each bi–weekly session. Data from eleven taped sessions was gathered on each child.

Results:

Table I shows the comparison of pre– and post–test measures on the three tests for the low ability group. The data show that these six children, as a group, made significant growth in all areas except on the expressive language subtest of the *Speech and Language Assessment Form.*

TABLE I

Test Results: Low Ability Group (N=6)

Test	Average Score Pre	Post	D	t	p
Speech & Language					
Receptive	22.83	39.00	16.17	4.78	<.05
Expressive	.50	2.67	2.17	1.17	>.05
Vocabulary	24.17	37.33	13.16	2.60	<.05
Auditory Discrimination					
Sound	11.50	30.00	18.50	8.80	<.05
DIP	10.33	31.83	21.50	4.53	<.05
Verbal	1.83	9.17	7.34	4.76	<.05
Articulation	8.83	15.50	6.67	3.05	<.05

Table II shows the comparison of pre– and post–test measures on the three tests for the high ability group. The data show that these 14 chidren, as a group, made significant growth on the three tests.

TABLE II

Test Results: High Ability Group (N=14)

Test	Average Score Pre	Post	D	t	p
Speech & Language					
Receptive	45.14	56.36	11.22	7.64	<.05
Expressive	8.71	16.64	7.93	6.19	<.05
Vocabulary	63.36	76.21	12.85	7.24	<.05
Auditory Discrimination					
Sound	33.29	42.43	9.14	5.79	<.05
DIP	37.28	40.64	3.36	3.68	<.05
Verbal	12.71	17.35	4.64	4.46	<.05
Articulation	30.64	40.86	10.22	5.94	<.05

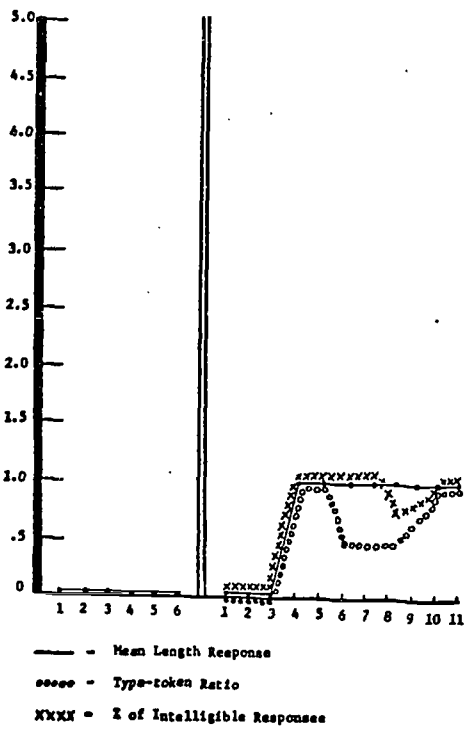
An examination of the expressive language graphs, indicate that the majority of children improved their classroom language behavior as shown by an increase in the mean length of response and an increase in the percent of intelligible responses. However, the graphs also indicate that the group showed little or no growth in the complexity of their responses.

It should be noted, that on the graphs, the measure for percent of intelligible responses is expressed as a percentage. Thus, 1.0 is equal to 100% and 0 is equal to 0%. Therefore, the percent of intelligible responses measure cannot go above 1.0 or 100%.

Child #2

EVALUATION OF EXPRESSIVE LANGUAGE

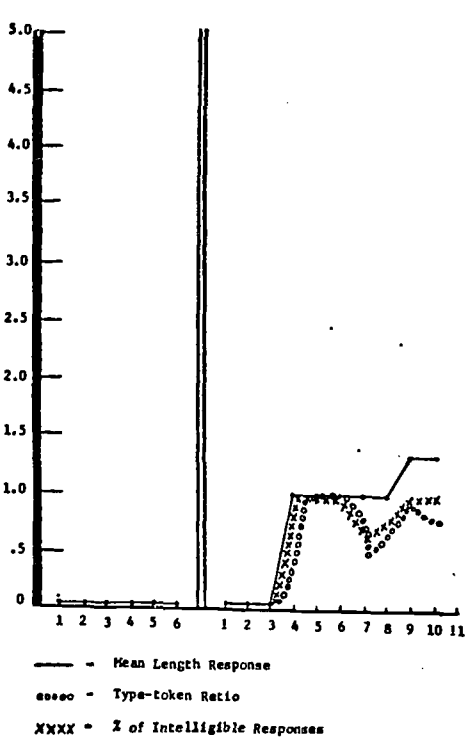
IN THE CLASSROOM



Child #1

EVALUATION OF EXPRESSIVE LANGUAGE

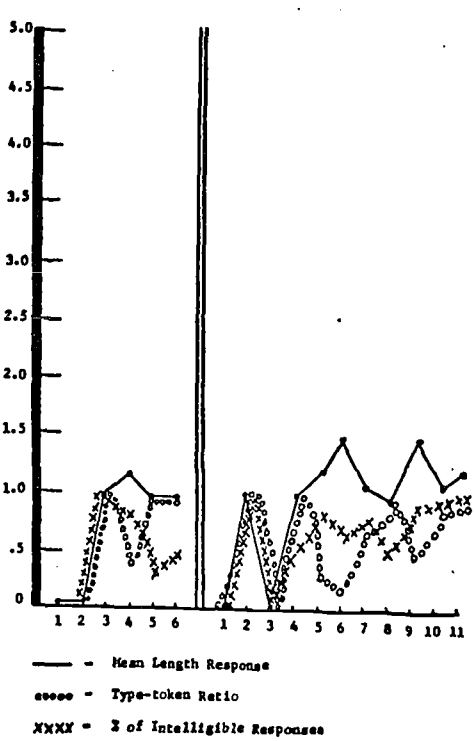
IN THE CLASSROOM



Child #3

EVALUATION OF EXPRESSIVE LANGUAGE

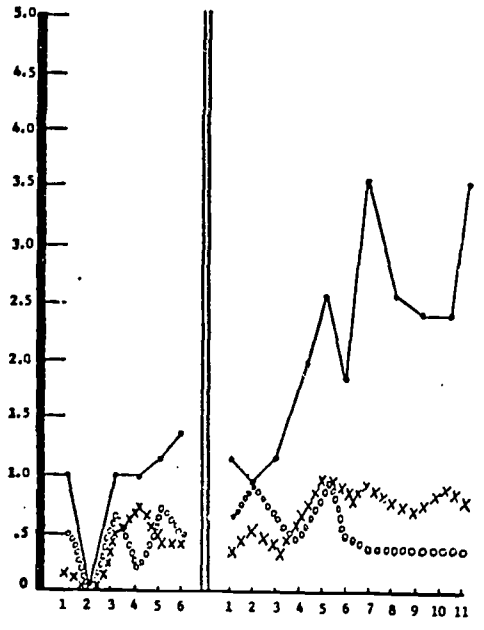
IN THE CLASSROOM



Child #4

EVALUATION OF EXPRESSIVE LANGUAGE

IN THE CLASSROOM



——— = Mean Length Response

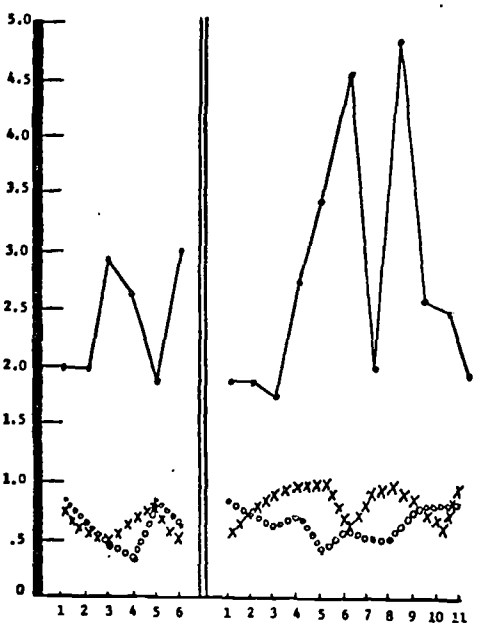
eeeee = Type-token Ratio

XXXX = % of Intelligible Responses

Child #6

EVALUATION OF EXPRESSIVE LANGUAGE

IN THE CLASSROOM



——— = Mean Length Response

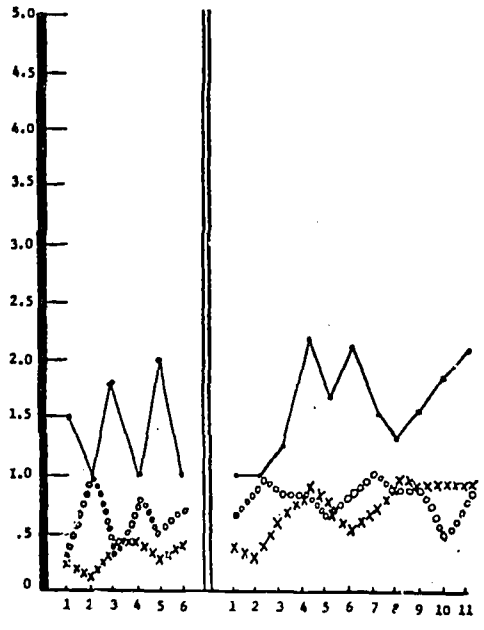
eeeee = Type-token Ratio

XXXX = % of Intelligible Responses

Child #5

EVALUATION OF EXPRESSIVE LANGUAGE

IN THE CLASSROOM



——— = Mean Length Response

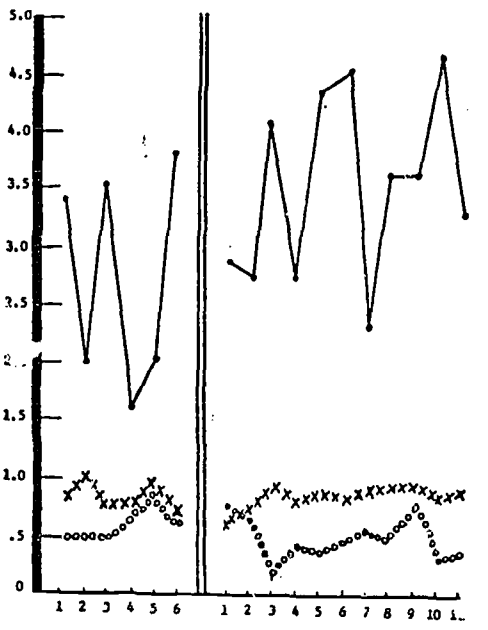
eeeee = Type-token Ratio

XXXX = % of Intelligible Responses

Child #7

EVALUATION OF EXPRESSIVE LANGUAGE

IN THE CLASSROOM



——— = Mean Length Response

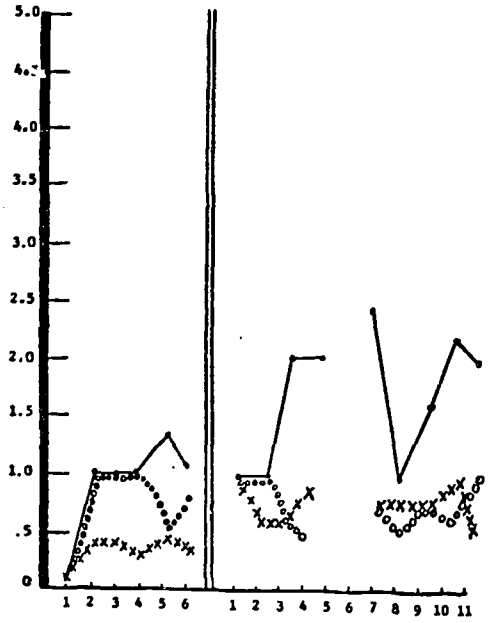
eeeee = Type-token Ratio

XXXX = % of Intelligible Responses

Child #8

EVALUATION OF EXPRESSIVE LANGUAGE

IN THE CLASSROOM



——— = Mean Length Response

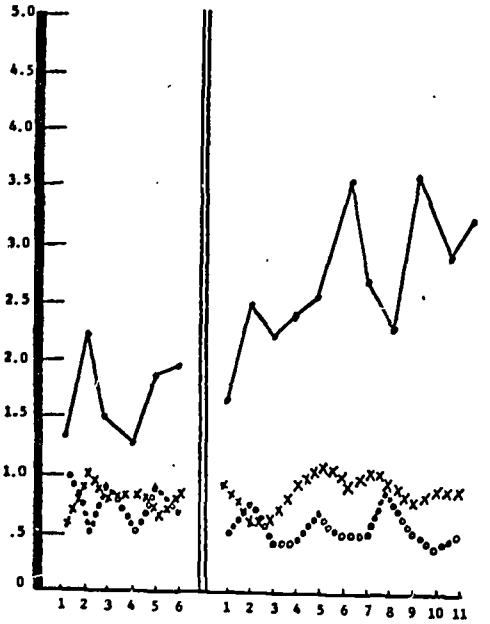
eeeee = Type-token Ratio

XXXX = % of Intelligible Responses

Child #10

EVALUATION OF EXPRESSIVE LANGUAGE

IN THE CLASSROOM



——— = Mean Length Response

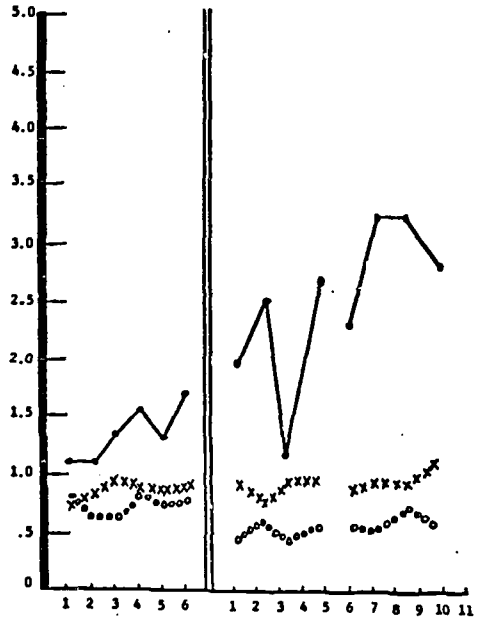
eeeee = Type-token Ratio

XXXX = % of Intelligible Responses

Child #9

EVALUATION OF EXPRESSIVE LANGUAGE

IN THE CLASSROOM



——— = Mean Length Response

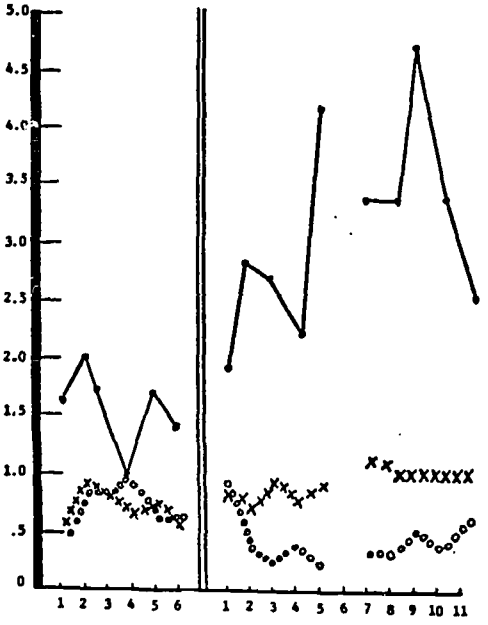
eeeee = Type-token Ratio

XXXX = % of Intelligible Responses

Child #11

EVALUATION OF EXPRESSIVE LANGUAGE

IN THE CLASSROOM



——— = Mean Length Response

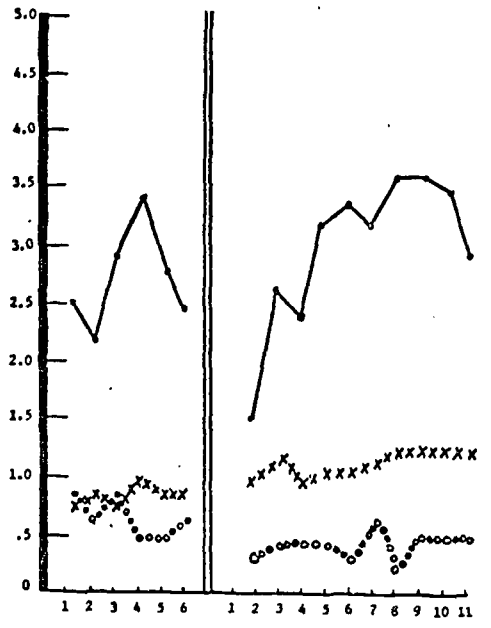
eeeee = Type-token Ratio

XXXX = % of Intelligible Responses

Child #12

EVALUATION OF EXPRESSIVE LANGUAGE

IN THE CLASSROOM



——— = Mean Length Response

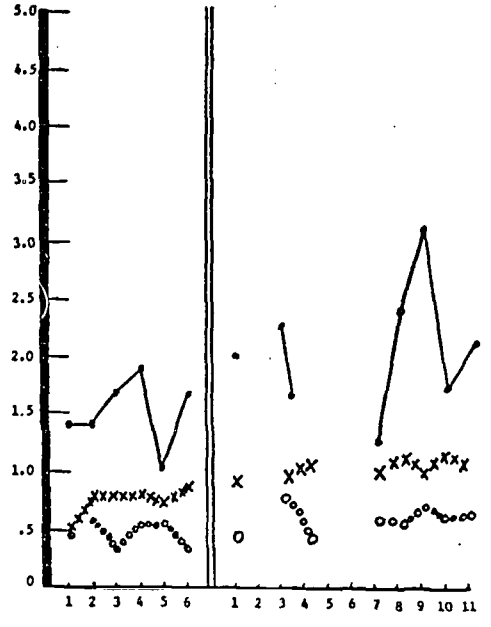
eeeee = Type-token Ratio

XXXX = % of Intelligible Responses

Child #13

EVALUATION OF EXPRESSIVE LANGUAGE

IN THE CLASSROOM



——— = Mean Length Response

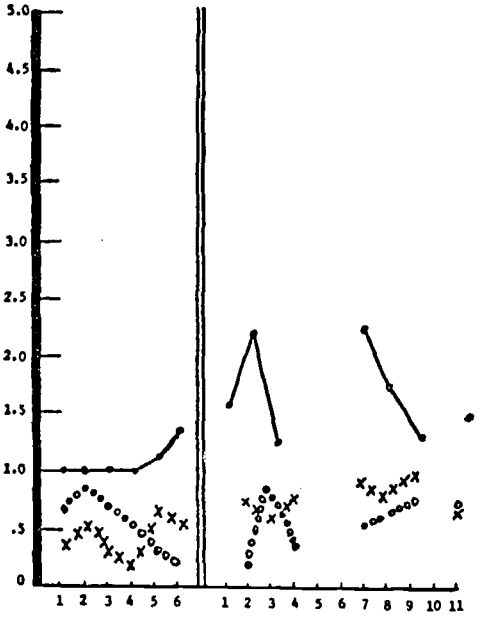
eeeee = Type-token Ratio

XXXX = % of Intelligible Responses

Child #14

EVALUATION OF EXPRESSIVE LANGUAGE

IN THE CLASSROOM



——— = Mean Length Response

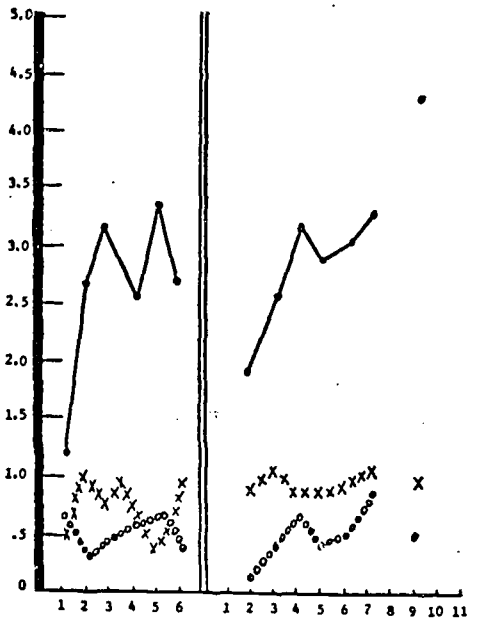
eeeee = Type-token Ratio

XXXX = % of Intelligible Responses

Child #15

EVALUATION OF EXPRESSIVE LANGUAGE

IN THE CLASSROOM



——— = Mean Length Response

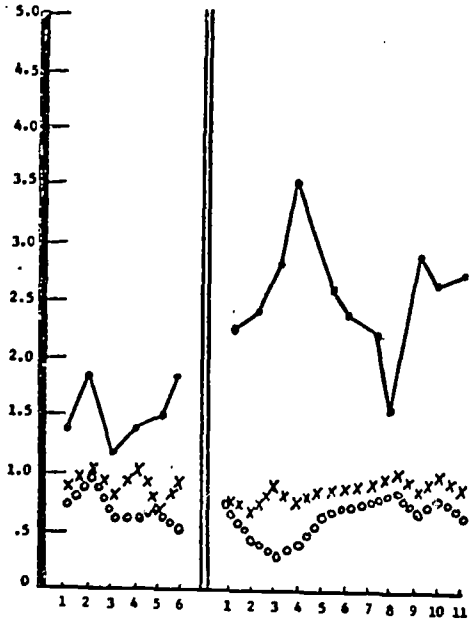
eeeee = Type-token Ratio

XXXX = % of Intelligible Responses

Child #16

EVALUATION OF EXPRESSIVE LANGUAGE

IN THE CLASSROOM



——— = Mean Length Response

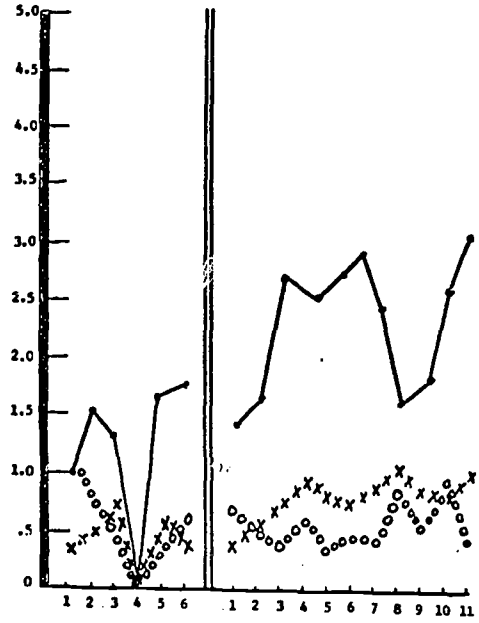
eeeee = Type-token Ratio

XXXX = % of Intelligible Responses

Child #17

EVALUATION OF EXPRESSIVE LANGUAGE

IN THE CLASSROOM



——— = Mean Length Response

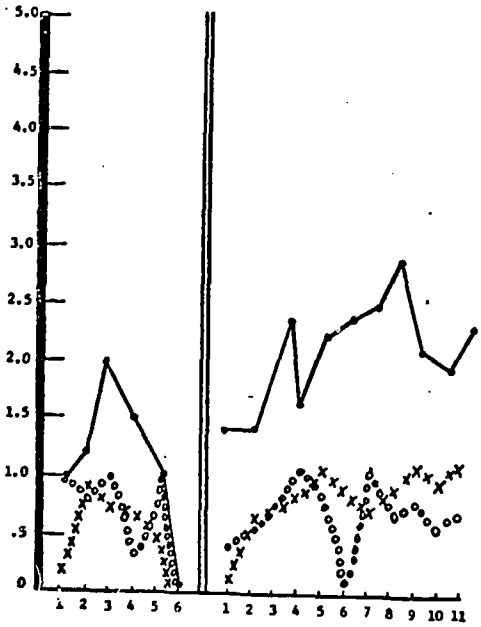
eeeee = Type-token Ratio

XXXX = % of Intelligible Responses

Child #18

EVALUATION OF EXPRESSIVE LANGUAGE

IN THE CLASSROOM



——— = Mean Length Response

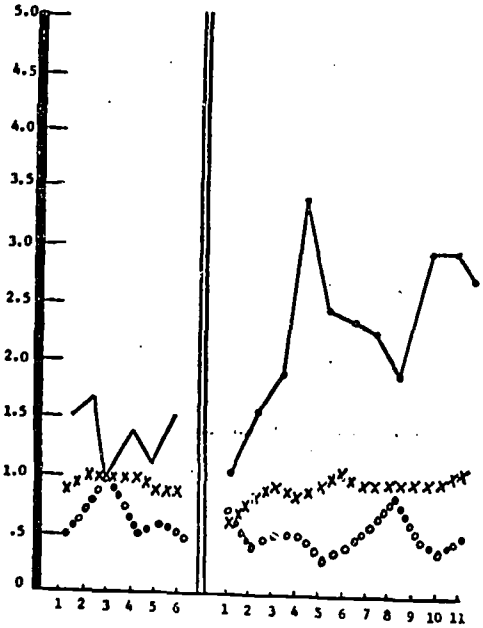
eeeee = Type-token Ratio

XXXX = % of Intelligible Responses

...ild #19

EVALUATION OF EXPRESSIVE LANGUAGE

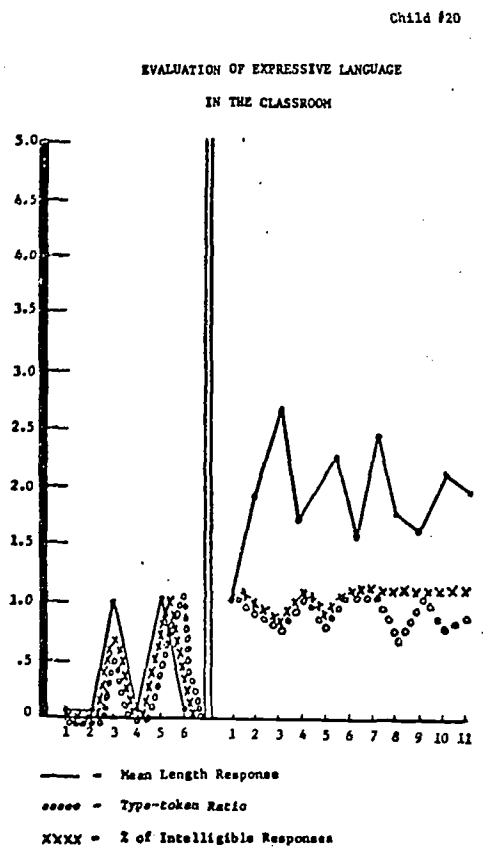
IN THE CLASSROOM



——— = Mean Length Response

eeeee = Type-token Ratio

XXXX = % of Intelligible Responses



Third Party Evaluator's Comments:

The evaluation data for this project indicates that, for the group as a whole, the pupils involved in this language program improved in virtually all areas assessed. The lack of significant growth by the low ability group on the expressive language subtest of the *Speech and Language Assessment Form* could be attributed to the fact that receptive language and auditory discrimination skills were stressed with these children whereas expressive language training received less emphasis. As these children did show significant improvement in receptive language skills, results suggest that they may be ready for more intensive training in expressive language.

Data from the taped classroom sessions indicated that the greatest improvement was shown in the area of mean length of responses. Since the teachers and aides had been instructed to reinforce children for using longer responses, it would appear that they were successful with their reinforcement procedure. The increase in percent of intelligible responses can also be attributed to the fact that the classroom teachers were reinforcing children only when they used intelligible responses. In order to improve the complexity of a child's language, it might prove worthwhile to initiate some type of structured vocabulary teaching.

When the overall results of the project are compared with the fact that the speech and language program was conducted entirely in classroom settings by teachers and aides, they suggest that this is an effective method of changing the language behavior of a group of retarded children. This evaluator feels that the concept of using the speech clinician to supervise and assist teachers in planning speech and language activities may be the most efficacious manner to use this type of personnel.

Title of Project: *Initiation of Educational Services for Profoundly Deaf Students with a Suburban Intermediate School*

Type of Project: *Hearing Impaired – Deaf*

Location: *Beaverton*

Funding Allotted: *$9,968*

Number of Children Served: *6*

Background and Rationale:

The current practice within the metropolitan Portland area is to transport profoundly deaf children within suburban school districts into central Portland for educational programming.

This project was designed to determine the effectiveness of establishing satellite classes in suburban districts wherever homogeneous grouping is possible. It is assumed that limiting the number of deaf students assigned to any one public school would also permit increased academic and social participation by the hearing impaired with their peer group.

Through the establishment of a resource room and its staffing by an experienced teacher of the deaf, the project was to determine the degree to which profoundly deaf students might be prepared for gradual integration within the regular school curriculum. This was a cooperative effort of three agencies, Tucker–Maxon Oral School, Regional Facility for the Deaf, and the Beaverton School District.

Objectives:

1. Determine feasibility of joint operation of a resource classroom for the deaf, involving participation of four agencies.
2. Measure *degree of academic growth* attained by hearing impaired students receiving supportive services of a teacher for the deaf within a public intermediate school.
3. Measure degree of social maturation attained by hearing impaired students included within project.
4. Identify areas of academic and social limitations which restrict participation by the hearing impaired student in the regular program of a public intermediate school.
5. Develop and test for effectiveness techniques, procedures, and materials designed to improve academic and social competencies of hearing impaired students of junior high age.

To measure the degree of attainment of these goals, the project was designed around the needs of the participants and the desired changes in behavior.

1. **Need** – Academic competencies
   Behaviors Desired
   a. Complete courses so as to receive passing grades.
   b. Identify areas of limited background and experience. Organize short units to expand experiences in areas found to be lacking.
   c. Follow lectures and class discussion to extent of obtaining general concepts and skills.
   d. Use notes and supplementary materials to fill in gaps created by limitations in lip reading of lectures and discussions.
   e. Extract basic information from texts and resource materials.
   f. Identify key vocabulary words and assume responsibility for speech, lip reading, and usage.
2. **Need** – Social competencies
   Behaviors Desired
   a. Take initiative in starting and carrying conversation with peers, faculty, visitors.
   b. Discuss trends in dress, records, sports, foods, movies, and teen interests within school.
   c. Use current "jargon" in conversations.
   d. Identify hearing people who are ill–at–ease with the deaf and reduce tension.
   e. Plan, host, and evaluate a social activity with hearing peers as guests.
3. **Need** – Communications skills
   Behaviors Desired
   a. Be understood by most peers and adults with minimal repetition.
   b. Follow lectures and discussions in classroom.
   c. Participate in group informal discussions.
   d. Present oral reports.
4. **Need** – Relationship with faculty
   Behaviors Desired
   a. Take initiative in discussing classroom procedures which limit comprehension and/or participation.
   b. Assume responsibility for daily checks as to assignments, projects, and general resumes of class activities.
   c. Discuss personal progress and problems with faculty and guidance counselor.
   d. Test the value of instructional media devices for use in individual programming for the hearing impaired.
   e. Identify attitudes and beliefs of administrators, faculty, and students within a public school toward the hearing impaired student.
   f. Measure extent of change in attitudes and behaviors toward the hearing impaired on the part of administrators, faculty, and hearing peers.

g. Identify common practices and procedures within a public school classroom which limit the extent of social participation and degree of academic attainment of hearing impaired students.

h. Identify skills and activities of parents which support maximum participation by hearing impaired students in a public school program.

i. Formulate a recommendation as to whether further educational programming for the hearing impaired in this geographic area should focus upon establishment of other resource rooms, the establishment of a school for the deaf, or the transporting of suburban students into facilities in central Portland.

Methodology:

The project was designed to operate during the 1969–70 school year. While the program was originally scheduled for eight students, the project served six. One student moved from the area during the summer and a second student was placed in a parochial school by her parents. However, in view of subsequent findings, it would appear that the reduced number (6) was the optimum number as far as effective operation of the program was concerned. There is serious reservation now that eight students could be scheduled successfully. (This is in spite of a national trend to have from eight to ten hearing impaired students per class.)

The resource room was assigned to the Mountain View Intermediate School, Beaverton School District. Hearing impaired students were scheduled into the regular program and/or received individualized services from an experienced teacher of the deaf.

Initially a project advisory committee was set up to formulate the project activities and to evaluate the progress of the project during the school year. (October, January, April and June).

The regular faculty was given an orientation at the beginning of the year in which a film on deafness was presented, methods of communicating with the deaf were suggested and individual profiles were presented for each student. Volunteers to accept the hearing impaired students into their classrooms were solicited. Frequent conferences were then held with the teachers during the school year. Informal discussions with 'hearing" students in each class where the 'hearing impaired" students were to be assigned were held. Students were assigned in up to four classes per day with their hearing peers. Supplementary work was assigned by the regular faculty and presented by the teacher for the deaf. Language development classes were also conducted by the teacher for the deaf. In cases where scheduling with the hearing peers was not recommended, the teacher for the deaf taught the same material that was covered in the regular class.

The hearing impaired students were encouraged to participate in all regular school social activities. They also had social activities of their own in which they invited other students to attend. Daily discussion was held concerning their relationships with hearing peers and the vocabulary problems which evolved.

During the year specific areas were identified in which the hearing impaired student would be limited in his ability to participate or experience. success. Other materials and procedures were designed to compensate for these areas.

Evaluation:

1. The Project Advisory Committee conducted four progress evaluations (Oct., Jan., April and June) of the administrative and operational aspects of the program.
2. Measure the degree of academic growth by deaf students during the school year by using the following instruments:
   a. Stanford Achievement tests (September and April)
   b. Monthly progress reports from faculty on each student
   c. Consultation with faculty
   d. Observations by teacher of deaf students in regular classes
   e. Evaluation of supplementary work presented by teacher of the deaf
   f. Recommendations of faculty for future programming
   g. Spontaneous Language and Speech Intelligibility tests (October–May) taped
3. Measure degree of social maturation attained by hearing impaired students
   a. Child Behavior Rating Scale (Cassel) (September and April)
   b. Survey of number and type of verbal contacts with hearing peers (October and May)
   c. Interviews with each student by Project Advisory Committee (October and May)
   d. Anecdotal entries in Teacher's Log
   e. Parent feedback obtained during monthly meetings
4. Develop and test for effectiveness, techniques, procedures, and materials designed to improve competencies of hearing impaired students
   a. Observations by teacher for the deaf in regular classes where deaf students attend
   b. Interviews with faculty and student body
   c. Observations from parents
   d. Survey of tests, homework assignments, and special projects
5. Test the value of instructional media devices for use in individual programming for the hearing impaired
   a. Teacher's log to describe limitations as they are identified. Corrective materials and activities are to be described in Log with notations as to effectiveness

b. Supervisors to consult weekly with teachers to assist in development and application of materials and procedure
c. Consultation with faculty and guidance counselor as to progress of deaf students

6. Measure extent of change in the attitudes of administrators, faculty and "hearing" students toward deaf students
   a. Pre– and post–project attitudinal and informational questionnaires to students, faculty, and administration. Weekly consultations with faculty members having deaf students
   b. Interviews with deaf students
   c. Observations of parents
7. After identifying practices and procedures of teaching that are not applicable to deaf children, measure the changes in behavior after modification of these procedures are made through the following:
   a. Vocabulary tests
   b. Reading rate tests
   c. Comprehension questions from materials
   d. Teacher's evaluation as to ease of operation and program preparation

Results:

At the conclusion of the project, the following recommendations were made by the Project Advisory Committee:

1. The teacher of the hearing impaired should be considered as a full and active member of the faculty of the school in which the resource room is located. This is essential and should be maintained regardless of which participating agency is providing salary and/or supervisory services. The teacher should attend all faculty meetings, be assigned extra–curricular duties, and participate as a regular member of the faculty.
2. Students enrolled in the resource room should have their records transferred to the school, be considered as regular students, and expected to comply with all school regulations and participate in all school activities.
3. Parents should be considered as patrons of that school and should be expected to participate in the regular parent activities.
4. Transportation should *NOT* be a determining factor in scheduling or in school placement. This will require maximum participation and consideration on the part of participating agencies. This phase of the resource room operation is probably the most "problem–prone," and several times during the project, informal transportation arrangements were necessary in order to keep the student programming adequate.
5. The administration and staff of the participating school should receive extensive orientation and preparation prior to the opening of the resource room. The project must be accepted by the staff of the school or it should be moved elsewhere. The availability of classrooms *should not* be the determining factor of location of the resource room.

The results of the Stanford Achievement Tests are shown in Table I. It should be noted that the test which was administered in September (Advanced Form L) was out of print. Therefore, the students were retested in January and May with Advanced Form W which is different in both content and presentation. The director of the project felt that Form W was considerably more difficult for hearing impaired students than Form L because of the differences in presentation.

Most students showed academic improvement on the Stanford Achievement Test. Growth range from .5 to 1.5 grades with a mean of 1.1.

Observations of Students:

Six times during the school year the teacher for the hearing impaired was freed from his classroom assignment for an entire day and permitted to observe classes where the hearing impaired students were assigned. This resulted in the following:

a. Increased awareness of the vocabulary demands of the regular classrooms.
b. Ability to offer "on the spot" suggestions to the regular staff as pertaining to the hearing impaired student.
c. Improved ability to guide the hearing impaired students into greater participation and comprehension of the classroom activities.
d. Opportunity to correlate individualized instruction within the resource room with the class activities involving the regular curriculum.

Supplementary Word:

One objective of the project was to increase the vocabulary level of the participating students. One phase of the supplementary programming with the teacher for the hearing impaired was the presentation of approximately 30–45 new words each week. This vocabulary was taken from academic classes, social activities, and general background materials. Through the use of a teacher aide, the resource teacher was able to present the new words, aid in the development of functional speech of the words, and check for spelling and multiple meanings. The vocabulary list was cumulative in that periodic rechecking of all words introduced during the year was scheduled. During May a member of the Project Advisory Committee checked out the retention level of each student through a randomly selected group of some one hundred words. The speech scores, comprehension levels, and the multiple usage abilities were between 70–80%. Considering that many of

TABLE I
Results of the Stanford Achievement Test

Student	Sub-Test	Form L Sept. 1969	Form W Jan. 1970	Form W May 1970	Sept. - May Difference
	Paragraph Meaning				
1.		5.8	5.4	5.6	-.2
2.		5.6	4.4	6.2	+.6
3.		6.9	6.6	7.2	+.3
4.		4.6	6.4	6.5	+1.9
5. Began Feb. 1970			5.0	5.3	+.3
	Spelling				
1.		6.6	6.4	7.0	+.4
2.		7.9	7.0	6.4	-1.5
3.		7.8	8.4	8.2	+.4
4.		11.1	12.0	11.8	+.7
5. Began Feb. 1970			6.6	6.7	+.1
	Study Skills				
1.		5.9	This student is		---
2.		8.1	not measured on		---
3.		9.4	Form W		---
4.		8.1			
	Word Meaning		Language		
1.		4.7	4.9	5.8	+1.1
2.		4.2	6.2	7.0	+2.8
3.		6.7	7.8	8.9	+2.2
4.		5.6	5.2	5.9	+.3
5. Began Feb. 1970			4.0	4.3	+.3
	Arith. Reasoning		Arithmetic Concepts		
1.		7.0	7.8	7.4	+.4
2.		7.9	7.4	9.2	+1.3
3.		11.0	12.0	12.7	+1.7
4.		6.6	7.8	8.2	+1.6
5. Began Feb. 1970			6.2	6.5	+.3
	Arith. Computation				
1.		7.3	7.8	9.2	+1.9
2.		8.2	7.2	8.6	+.4
3.		10.7	11.7	12.9	+2.2
4.		---	6.2	8.4	+2.2
5. Began Feb. 1970			6.6	6.9	+.3
	Social Studies				
1.		4.7	5.8	5.6	+.9
2.		5.5	4.9	5.6	+.1
3.		6.5	8.4	8.7	+2.2
4.		6.4	6.8	7.0	+.6
5. Began Feb. 1970			5.4	5.6	+.2
	Science				
1.		4.8	5.8	4.8	---
2.		4.6	5.0	5.5	+.9
3.		5.0	8.0	8.3	+3.3
4.		4.6	4.1	4.6	---
5. Began Feb. 1970			5.8	6.1	+.3
	Arithmetic Application				
1.			7.4	9.1	+1.7
2.			8.5	8.5	---
3.			12.3	12.9	+.6
4.			5.3	6.7	+1.4
5. Began Feb. 1970			6.0	6.2	+.2

these words were technical in nature and not a part of a daily vocabulary, the retention level was felt to be quite good.

Recommendations of Faculty for Future Programming:
Every nine weeks the program at Mountain View School was changed as elective courses were on a 1/4 year scheduling. This permitted three faculty evaluations as to placement during the school year.
Three students were reassigned from 7th to 8th grade mathematics. One student was reassigned upward in Science, and two students were regrouped for physical education.
On June lst a faculty meeting was held at which time staff members offered recommendations and comments concerning 1970–71 programming for the hearing impaired students. The six pupils enrolled were discussed individually and specific programs developed for them with the anticipation that the project would be approved for a second year.
The general recommendation was that the six boys be placed in the ninth grade for the 1970–71 school year. While the teacher of the resource room and one member of the Project Advisory Committee had reservations about one

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The general recommendation was that the six boys be placed in the ninth grade for the 1970–71 school year. While the teacher of the resource room and one member of the Project Advisory Committee had reservations about one student, the Intermediate school faculty felt his progress had been sufficient to justify his continued participation.

Spontaneous Language and Speech Intelligibility Tests:

There are no standardized language and speech intelligibility tests available. However, tapes were made of the spontaneous speech of the students in the fall and in the spring. Three listeners heard the tapes and were asked to state which tape was the more intelligible. In five out of the six instances, the judges picked the tapes which were made in the spring. In the sixth instance the speech remained unintelligible.

Language growth was evaluated through the writing of original compositions in September and May. Items compared were:

1. Grammatical correctness
2. Length of sentences
3. Frequency of clauses
4. Use of adjectives
5. Appearance of new vocabulary
6. Sequence development of composition
7. General presentation

Three teachers for the deaf read and evaluated the compositions. Improvement noted was as follows:

1. Grammatical correctness noted in 4 out of 6
2. Length of sentences observed in 6 out of 6
3. Frequency of clauses up in 5 out of 6
4. Use of new adjectives up in 3 out of 6
5. Appearance of new vocabulary (other than adjectives) 5 out of 6
6. Sequence development felt to be improved in 6 out of 6
7. General presentation felt to be improved in 6 out of 6

The Child Behavior Rating Scale was administered in September and May. The test consisted of 78 items divided into five areas. The Scale was standardized on 2,000 children. Personality Total Adjustment Scores were obtained and compared between September and May. The following were made:

1. There was a higher variation between observers on this project than reported in the Rating Scale Manual. One explanation might be that the three observers were seeing the students at different frequencies (daily, once a week, occasionally).
2. T scores obtained for the pupils revealed within normal range ratings of the five levels:
   a. Self adjustment
   b. Home adjustment
   c. Social adjustment
   d. School adjustment
   e. Physical adjustment
3. T scores increased during the year for two students, stayed approximately the same for three.
4. Two students experienced considerably lower scores in Physical Adjustment for the second semester. Possible explanations would include experimenting with some of the more liberal modes of attire, extended illness of one student, and the customary "raggedness' of the last few weeks of the school year.

Number and Type of Verbal Contacts with Hearing Peers:

One measure of the degree of social acceptance gained by the hearing impaired students was the type and extent of communication with hearing peers. Two days in October and two days in June were scheduled as observation days. The resource room teacher was relieved of his classroom assignments and observed the hearing

impaired students prior to the beginning of classes, during breaks between classes, at the noon hour, and after school. Classroom conversations were noted only if they were "non–academic." An effort was made to avoid being obtrusive, and the students had been told they would be observed during the year in order to determine how well the project was going.

Conversations were categorized into "Deaf–Initiated" (D.I.) and "Hearing Initiated" (H.I.). (Two students were not included in this measurement of objectives as they were not enrolled until mid–year.)

TABLE II
Conversation (Daily Basis)

	Student A	Student B	Student C	Student D
October	D.I. 9 H.I. 11	D.I. 13 H.I. 5	H.I. 10 D.I. 13	D.I. 2 H.I. 13
June	D.I. 36 H.I. 34	D.I. 28 H.I. 22	H.I. 32 D.I. 28	D.I. 4 H.I. 10

The number of conversations of both categories increased two and three fold between October and June with the exception of one student. (This boy had not been prone to socializing even while attending a school for the deaf.)

It was evident that the hearing impaired felt confident of their ability to be understood and accepted and that the hearing peers not only responded to their communications but increased the number of hearing–initiated conversations.

While a 'grading" of the conversations was neither a part of the project nor deemed feasible, an objective evaluation would indicate that the length of the communications increased considerably during the year and the nature of the communications gradually shifted from school–oriented to personal topics. (This was felt to be the case as the observer was able to lip read parts of many of the conversations.)

Interviews with Hearing Impaired Students:

Each member of the Project Advisory Committee visited the program at least twice. Two of the committee members visited six times. Interviews with the students were informal and unscheduled rather than the formally scheduled format that had been originally designed.

Reports from the Project Advisory Committee indicated the following:

1. The hearing impaired students had no desire to return to a school or class for the deaf.
2. The students felt they had been accepted by their hearing peers.
3. The students knew that they could not expect the personal attention they had previously received in a school for the deaf.
4. There was some initial "over–estimating" by the students as to how much they were absorbing from classroom discussions and text books.
5. The intra–mural program of the physical education department was of great value in locating close personal friends.
6. The students participated in just about all of the social activities at the school. In many cases this meant long bus trips in the late afternoons and evenings, but there were no complaints from students or parents.
7. One boy continued to feel uncomfortable wearing a hearing aid.
8. Informal conversations with the students tended toward social items with only limited interest in academic items. (This was considered further evidence of their social acceptance and participation.)

Parent Observations:

The original project design called for monthly meetings with parents. This was not deemed possible due to the fact that parents were bringing students back many evenings or picking them up late in the afternoons so that the pupils could participate in the social activities.

However, the teacher for the hearing impaired telephoned each parent at least bi–weekly and met personally with three of the parents on a weekly informal basis.

Parental observations noted in the teacher log include:

1. The students enjoyed the school program. The social phase was of prime interest although there was a considerable maturation noted in their ability to complete homework assignments and do independent library readings.
2. Social vocabulary often had to be taught at home and/or school as the deaf students were lacking in essential concepts.
3. One family moved from outside of the Beaverton school district to an area near the school so that their son would be able to continue attending, regardless of the future of the resource room.
4. The faculty made the parents feel they were patrons of the school and not parents of special education students. This was stressed several times.
5. Parents felt that social integration occurs with less difficulty and more success when hearing impaired students are dispersed throughout a school system and not grouped in one school. They felt that six was an ideal number for one school in that it permitted the services of a trained teacher for the deaf but did not foster the formation of a "deaf minority."
6. Parents urged that future programming provide for resource rooms on a junior high basis rather than delaying same until high school as is currently the practice in many areas.

The following information was gleaned from testing of various procedures and materials that were used with the deaf students:

1. Hearing impaired students tend to have difficulty in pacing their activities through a long term assignment. Setting up a schedule for certain objectives within the assignment was helpful. Toward the end of the year the students were expected to be able to schedule themselves.
2. The responsibility for "identifying" which new words in textbooks probably are vital for understanding of the paragraph was placed on the pupils. Recognition of clues such as location in the sentence, classification of word, and number of times repeated were stressed. Students were held accountable for speech, speech reading, spelling, and at least two meanings for 30–45 new words per week. Words were taken from textbooks, social events, and personal needs.
3. Hearing impaired students initially had difficulty functioning in group projects. They tended to wait to be assigned a role rather than selecting one for themselves. Group projects within the class of hearing impaired were designed to give experience in group participation.
4. The Mountain View program was not oriented to note taking. This had been anticipated as a possible problem. Materials had been obtained from the National Technical Institute for the Deaf, Rochester, New York, for use by note–takers for the hearing impaired students.
5. The teacher of the hearing impaired must anticipate the vocabulary needs of the deaf as they participate in social, intra–mural, and club activities. The "technical" vocabulary of specific activities must be mastered before adequate participation is possible. The teacher often visited or participated in such activities prior to the involvement of the deaf so as to get an over–view of procedures and terms.
6. Creative writing and descriptive writing were of minimal quality and quantity. Exercises in adjectives, verb tenses, and clauses were separated from the academic program and related to sports, personal experiences, and social activities within the school.
7. The Mountain View program was not homework oriented. In order to maintain the pace of the regular classes and to continue with the language and speech with the teacher for the deaf, it was necessary for the hearing impaired to develop personal homework assignments and to develop a certain degree of self–pacing and self–discipline. The most effective tool was that of periodic discussion about topics from the academic areas. Inability to participate often indicated a shallowness in preparation and/or study. This additional effort was presented as the "price" of keeping up with the regular classes.
8. School activities were announced over the intercom. A brief summation was written on the blackboard. Students were expected to ask friends during the day for further details. This was a strong motivation for initiating conversations and expanding vocabulary.
9. The hearing impaired students were up to two years older than their hearing peers. In some cases, the social need for participation with their own age group dictated reassignment to a more advanced class. Without individual tutoring from the teacher for the deaf, this would not have been academically possible.

The following comments are appropriate relative to the change in attitudes of administrators, faculty and "hearing" students toward deaf students.

The project was modified to the extent that the faculty orientation was given prior to the administration of the first attitudinal test. This was due to the last–minute decision to locate the resource room in Mountain View School and the fact that the faculty was already involved in orientation activities.

However, the attitudinal questionnaire did permit a measuring of the effectiveness of the project's orientation program. A film on deafness, descriptive brochures on how to communicate with the deaf, and individual profiles on each of the hearing impaired students were distributed to the faculty. A brief question and answer period was held, and faculty members were invited to volunteer to accept hearing impaired students into their rooms.

From the open–ended questions of the attitudinal test, it was felt that the faculty had absorbed the following concepts from the orientation:

1. The entering deaf students will have social limitations due to the hearing handicap and the lack of experience.
2. Speech (lip) reading breaks down for various reasons – some preventable and some not at the command of the teacher.
3. There are techniques which a classroom teacher can use to re–establish the line of communication with a deaf student during class discussions and question and answer periods.
4. A deaf student should be expected to participate as an average hearing student as far as recitation, discussion, assignments, and test results.
5. Academic problems are generally caused by the hearing loss and the difficulty in acquiring language patterns and vocabulary.

There were two concepts that the faculty failed to grasp:

1. The minimal vocabulary of the average hearing impaired child.
2. The limited depth of concepts, particularly those involving abstractions.

The attitudinal tests were administered twice, once in September and again in June. In addition a rather extensive interview was conducted in June with each faculty member who had taught a hearing impaired student during the year.

Faculty changes as noted in responses to the test and during the interviews included:

1. A greater awareness of the language limitations of the hearing impaired.
2. An appreciation of the implications of a hearing loss as it involves academic, vocational, and social preparation.
3. A realization that the hearing impaired student may require additional "enrichment" activities and materials.
4. An ability to become objective in evaluating the attainment and individual problems of the hearing impaired students.

The resource room was deemed to be of value in the academic and social programming of five of the six students enrolled. In the programming for the one student there is a question as to whether he would profit from any available program due to personality problems.

The academic progress was equal to that generally obtained by "above average' hearing impaired students although the group was judged as "average" in regards to innate ability and past performance levels. The successful academic year can be attributed to the involvement of the regular staff, the excellent management of the resource room by the teacher of the deaf, and the support of the students and parents.

The advisability of establishing additional resource rooms in suburban districts should be dependent upon the following conditions:

1. Existence of a group of students whose academic level, social maturity, and chronological ages are suitable for placement in a single unit.
2. Willingness of participating agencies to permit a certain degree of flexibility in administration of the resource room. (See Objective 1.)
3. Availability of an experienced and competent teacher of the hearing impaired who can adjust to an individualized program.
4. Existence of competent supervisory personnel to complement the services of the teacher for the deaf in programming, curriculum development, and pupil guidance.
5. Willingness of a public school to accept a resource room into the total program as an integral part of the school.

Third Party Evaluator's Comments:

The magnitude of this project was considerably more than simply demonstrating academic gains with severly hearing impaired children. The concept of integrating severely hearing impaired children into a regular school setting is one that has been widely discussed within this state for some time. This project has done much to demonstrate that this procedure can be implemented successfully.

The information presented in the final report concerning recommendations to other districts who contemplate setting up such program is quite complete and represents the results of trial and error procedures during the year. The project director and the project teacher did an outstanding job of evaluating the various administrative and educational procedures and reporting them in much detail.

The data reported on the Stanford Achievement Tests were not as meaningful as they might have been had the two forms been compatible in content and procedure. This difficulty could have been alleviated by selecting a form that the director knew was current and accessible during the entire project.

It was also unfortunate that the maximum number of students could not have been included in the project. While it is understood that a low teacher–child ratio is ideal for teaching the hearing impaired, conceivably this model could have included more children for the same dollars spent. To have demonstrated whether one could or could not do this would have been valuable information for other school districts to have.

It is the opinion of the third party evaluators, that both the objective and subjective results indicate that the project's objectives were met. Further, this project should have great impact on all school districts who desire to initiate comparable programs.

Project Title: *Learning Disabilities: Identification and Remediation at Kindergarten Level*

Type of Project: *Learning Disabled*

Location: *Lake Oswego*

Funding Allotted: *$13,176*

Number of Children Served: *30*

Background and Rationale:

Many, otherwise normal children, enter school with an inability to profit from the educational program and often times these children have not learned to read by the end of the second or third grade. Some type of instrument needs to be developed that would identify these children early in their school years so that appropriate intervention techniques could be initiated. Kartina de Hirsch in her book *Predicting Reading Failure,* discusses a battery of tests which she feels is reliable in identifying these children.

This project is a continuation of a previous Title VI project in which a group of kindergarten children were identified as potential learning disabled, using teacher observation for initial referal and subsequent testing on the de Hirsch test. Special intervention techniques were initiated with an experimental group selected from the total group and a control group, for comparative purposes, was formed with the remaining children. Part of the present project is designed to evaluate the academic progress of these two groups. Other facets of this project are designed to evaluate other groups of children who were tested with the de Hirsch test.

Objectives:

There are three main parts to this project, each with its own objectives. These objectives are listed below.

Part I

1. To verify the reliability of the de Hirsch test to predict reading failure at the end of the first grade. The Gilmore Oral Reading Test will be used to assess reading ability.

Part II

1. To evaluate the effectiveness of a special teacher working with students identified on the de Hirsch tests as possible reading failures at the beginning of their kindergarten year.
2. To evaluate the effectiveness of full year special help versus half year special help for children identified as potential reading failures on the de Hirsch test.

Part III

1. To evaluate the effectiveness of the Distar Reading and Language program as a reading program for EMR children.

Methodology:

Methodologies of the three parts of this project are presented separately.

Part I

In June of 1969, 49 kindergarten students were identified as potential reading failures on the basis of their de Hirsch test scores. Thirty of these children were given special help to prevent reading failure during a six week summer session and are identified as the experimental group, while the remaining 19, who were given no special help, are identified as the control group. In order to determine if the de Hirsch Test can be used to predict reading week in young children and to determine the effects of a six week remedial program designed to prevent reading failure, all of these children were administered the Gilmore Oral Reading Test in June, 1970 at the end of the first grade.

Part II

In the fall of 1969, a group of 69 kindergarten pupils were identified as being possible failures in reading on the basis of the fact that they failed to obtain a passing score on the de Hirsch Test. Twenty of these children were given special remedial help, one hour per day, for the entire school year and 10 of these children were given special remedial help, one hour per day, from September to December only. Thirty–nine of these children were given no special help. The former two groups were identified as the full year and half year intervention groups and the latter group as the control. Effectiveness of the special remedial program was to be assessed by administering the de Hirsch Test to the total group at the end of the kindergarten year.

Part III

A class of nine EMR children were tested, at the beginning of the school year, using the de Hirsch Test and the Gilmore Oral Reading Test. Results of these tests allowed the teacher to determine each child's strengths and weaknesses in the area of reading. Using the Distar Reading Kits, the teacher was able to plan a reading program to meet the needs of the class. In order to measure the effects of this program, the de Hirsch Test and Gilmore Oral Reading Test were administered again at the end of the school year. Pre– and post–test results were analyzed to determine the amount of growth in reading during the year.

Results:

Results of the three parts of this project are presented separately.

Part I

Table I shows the results for the experimental group on the de Hirsch Test administered in August, 1969 and the

Gilmore Oral Reading Test administered in June, 1970. It should be noted that a score of four or more is considered passing on the de Hirsch Test and for the purpose of discussion, any child obtaining a score above the first grade level (1.0) will be considered as reading at grade level or above.

TABLE I

de Hirsch & Gilmore Oral Reading Test Scores

Experimental Group (N=28)

Subjects	de Hirsch, Aug. 1969	Gilmore Oral Reading Test, June, 1970	
		Accuracy	Comprehension
1	6	.8	2.1
2 D	4	1.2	3.4
3 D	5	1.5	2.1
4 D	4	1.5	1.0
5	7	.6	2.1
6	5	1.3	1.4
7	2	1.3	3.4
8	4	1.2	1.4
9	3	.8	2.1
10	8	.8	1.3
11 D	*	1.5	1.4
12	7	1.3	3.1
13 D	5	1.4	3.1
14	7	1.3	2.1
15	*	.9	2.1
16	*	1.2	2.1
17	3	1.?	1.4
18	4	1.0	1.3
19	2	1.1	2.8
20	4	.3	.7
21	7	2.0	3.1
22	5	2.1	1.6
23	2	1.1	.8
24 D	3	2.3	2.3
25	7	2.1	1.8
26	6	.6	1.3
27	4	.8	2.1
28	5	.5	.7

D - Distar

* - Did not take test

An examination of the results show that only two subjects, number 20 and number 28 were below grade level in both accuracy and comprehension on the Gilmore Oral Reading Test. It should also be noted that both of these subjects passed the de Hirsch Test. Results also indicate that seven subjects were below grade level in accuracy and one was below grade level in comprehension. Of the seven subjects who were below grade level in accuracy, only one of the subjects, number 9 failed the de Hirsch Test. The one subject who was below grade level in comprehension, number 23, also failed the de Hirsch Test. Of the six subjects who failed the de Hirsch Test in August, none were below grade level in reading on both the accuracy and comprehension subtests of the Gilmore Oral Reading Test in June.

Table II shows the results for the control group on the Gilmore Oral Reading Test and these results indicate that only two subjects, number 4 and number 8 were below grade level in both accuracy and comprehension. Five subjects were below grade level in accuracy and one subject was below grade level in comprehension. It should be noted that this group was not retested on the de Hirsch Test in August, 1969. However, as was noted earlier, all of these children failed the de Hirsch Test in June, 1969.

TABLE II

Control Group (N=19)

Subjects	Gilmore Oral Reading Test - June, 1970	
	Accuracy	Comprehension
1	2.6	3.4
2	1.8	1.0
3	.2	2.1
4	.2	.7
5	1.2	1.4
6	2.9	2.6
7	1.0	2.1
8	0	.4
9	.9	1.3
10	0.0	1.3
11	.5	1.3
12	1.9	.8
13	1.3	2.1
14	1.7	1.4
15	1.2	2.1
16	2.0	1.3
17	.4	2.1
18	1.9	1.9
19	1.3	2.1

Results from these two Tables indicate that the de Hirsch Test is not *predicting* reading failure at the end of the first grade year. Because of the intervention program that the experimental group received, it is difficult to assess the predictability of the de Hirsch Test with these children, but the control subjects, who failed the test in June, 1969 and received no special help, did not show any trend toward reading failure at the end of the first grade year.

On Table I, those subjects with the letter D beside their number, received instruction with the Distar Reading material during their first grade year. All six of these subjects received scores on the Gilmore Oral Reading Test above the first grade level.

Part II

Tables III, IV and V provide comparative data on the mean scores obtained by the three groups of kindergarten children on the de Hirsch Test at the end of the kindergarten school year.

TABLE III

de Hirsch Test Results: Full Year Intervention - Control

Group	N	Mean	t	p
Full Year	20	4.90	1.69	$>.05$
Control	36	4.14		

TABLE IV

de Hirsch Test Results: Half Year Intervention - Control

Group	N	Mean	t	p
Half Year	10	4.70	.74	$>.05$
Control	36	4.14		

TABLE V

de Hirsch Test Results: Full Year - Half Year

Group	N	Mean	t	p
Full Year	20	4.90	.25	$>.05$
Half Year	10	4.70		

There were no significant differences between any of the mean scores of these groups, indicating that the special remedial help, either on a full year or half year basis, was not effective in remediating the group's de Hirsch Test scores. It should be kept in mind that these results indicate change on the de Hirsch Test only, and do not reflect any type of formal reading score. Assessment of the reading ability of these children will be done while these children are in the first and second grades.

Post--test results on the de Hirsch Test by groups showed that 16 of the full year intervention groups passed the test, 6 of the half year intervention group passed and 2 of the control group, who received no special help, passed the test. These results further indicate that the special remedial help was not effective in remediating the experimental groups scores over the control group.

Part III

Table VI shows the results on the Gilmore Oral Reading Test for seven of the nine EMR children involved in the Distar Reading and Language Program. Two of the children could not be tested.

TABLE VI

Gilmcre Oral Reading Test Scores

Subject	Pre-test 10-69 Accuracy	Pre-test 10-69 Comprehension	Post-test 6-70 Accuracy	Post-test 6-70 Comprehension
1	4.3	2.6	4.5	2.8
2	3.3	2.1	3.3	3.4
3	1.8	2.6	2.1	5.8
4	4.3	2.6	4.5	2.8
5	1.5	1.6	2.3	4.1
6	1.4	.4	2.3	1.3
7	1.0	1.8	1.7	2.6

Table VII presents the average gain made by the seven children in reading as measured by the Gilmore Oral Reading Test.

TABLE VII

Average Pre-Posttest Scores on the Gilmcre Oral Reading Test (N=7)

Gilmore Oral Reading	Average Score Pre	Average Score Post	D	t	p
Accuracy	2.51	2.97	.46	3.34	$<.005$
Comprehension	1.96	3.26	1.30	3.00	$<.005$

As can be seen from Tables VI and VII, these EMR children made excellent growth in reading. They all made more growth in reading comprehension than is usually expected for EMR children. These results would strongly suggest that this type of program be utilized on a wider basis with EMR children.

Third Party Evaluator's Comments:

Results of this project are varied because of the number of variables under consideration. However, in this evaluators judgment, two important findings are presented in this project. One is that the de Hirsch Test does not appear to be a predictor of reading failure at the first grade level and the other is that the Distar Reading Program may be an excellent reading program for EMR children.

In reviewing all the results of this project that deal with the predictability of the de Hirsch Test, there does not appear to be any trend that would suggest that this test can be used to predict reading failure in young children at the first grade level. This finding is very important in itself for it should indicate to others looking for a test of this type, that the de Hirsch Test may not be a suitable instrument for locating children with potential reading problems. However, it should be kept in mind that the de Hirsch Test is designed to predict reading failure at the end of the 2nd grade. Therefore, all of the children involved in this project will be tested at the end of their 2nd grade year. However, if present trends continue, it does not appear that the Test will predict reading failure at this time.

The reading growth exhibited by the seven EMR children was excellent. Typically, EMR children are considered to be learning at a slower rate than normal children, yet the results of the seven children using the Distar Reading and Language material indicate that they are learning at a rate faster than normal. These results strongly suggest that this program be used with a larger group of EMR children in order to ascertain if these results can be replicated.

Project Title: *Parkrose Social Transition Classroom for Seriously Emotionally Disturbed Elementary Age Children*

Type of Project: *Emotionally Disturbed/Learning Disability*

Location: *Parkrose School District, Portland*

Funding Allotted: *$21,618*

Number of Children Served: *19*

Background and Rationale:

The Parkrose Project has been in operation for several years treating emotionally disturbed children in classroom situations. The personnel working with that project have concluded that there is a middle ground between extreme emotional or behavioral disorder and the emotional or behavioral control necessary for functioning at a minimumly acceptable level in a normal public school classroom. Once a child had reached a point where he was wanting and willing to consciously help himself for normal (though perhaps exaggerated) social rewards, he was ready to leave the total control, flexible system necessary in the classroom for children with extreme disorders. He was not yet normal, however, until his willingness toward socialization had allowed him to actually gain social skill. He needed guidance and models for this development. He could not function in a normal classroom. Therefore, this project proposed a Social Transition class which would provide the necessary service for these youngsters, providing them with the next level of social and academic opportunity which they were ready to handle. An ancillary benefit of this project would be to make available additional places within the original Parkrose Project in that there was a sizable waiting list for children to be admitted into that program.

Objectives:

Primary objectives to this project:

1. Provide appropriate education experiences in a classroom situation for approximately twice as many seriously emotionally disturbed children from this district as are now being served.
2. Defer or return at least twice as many of these children to normal classes, after they have improved behavioral skills to at least a minimum established level of acceptability, as have been returned by the existing special education service.
3. Shorten the time lapse between the district's awareness of a serious problem and the beginning of appropriate special education aid.
4. Develop a set of less severe behavior modification techniques which are successful in promoting desired behaviors in severely disturbed children at a similar rate to that affected by the existing techniques when applied to extreme disorders.
5. Provide an in–between special education service for children improved sufficiently to leave the highly controlled class for extreme disorders which is now functioning.
6. Provide a diagnostic situation for seriously emotionally disturbed children which will not tie up the expensive service of the intensive classroom and provide effective treatment for those children diagnosed as severely, but not extremely disturbed.

Secondary or minor objectives are:

1. Adapt individualized program instruction materials to meet the needs of this special education situation.
2. Support and train parents of severely emotionally disturbed children which will enable them to deal more effectively with their child at home, familiarize them with the project, and reduce the interference of home problems with the services provided in the classroom.
3. Develop techniques which teachers of normal classrooms could use to reduce temporary situational and emotional disturbances they deal with.
4. Provide a model for special education services which could take "drop in" children suffering temporary disturbances, thereby decreasing the damage such problems cause the children and removing the source of extreme temporary disorder in the classroom.
5. Involve non–educators in school related community problems.
6. Provide models of successful socialization to disturbed youngsters lacking this skill.
7. Provide intensive personalized program courses of instruction to help socially superior, but academically underachieving youngsters.
8. Prevent serious emotional disturbance in siblings of students in the project by increasing parental awareness of treatment of behavioral and emotional disorders.
9. Increase measurably the academic and behavioral skills of children who need to remain in the project.

Methodology:

The Social Transition Class commenced on September 17, 1969 and ran the entire school year until June, 1970. The class was unique in that it combined children who were classified as emotionally disturbed with

those who were not emotionally disturbed, but who were considered to be dependable and normal in their behavior; however, they did have academic needs which indicated that they would benefit from more individualized programs. These children were known as counselors. Eight such children were chosen.

Emotionally disturbed children were admitted into the class after being referred by the school and after two independent observers visited the child's classroom and reported on the observed behaviors. The Walker Problem Behavior Identification Checklist was used to indicate parent and teacher attitudes about the child.

An examination of the reports of the observers' visits to the child's classroom decided whether or not it was important to take the child into the Transition Classrooms for a trial period. A trial period consisted of three one–half days where informal and formal tests were administered to indicate the level of academic achievement and to observe the child's interaction skills with other children. The measures utilized during this period included the Peabody Picture Vocabulary Test, Perceptual Tests requiring manual dexterity, the Sullivan Programmed Reading Pre–test, teacher–made arithmetic tests and a phonics check test.

After the three one–half day evaluations, a staffing was held to decide whether or not placement in the project was desirable, and if so, which classroom would be the most appropriate to meet the child's needs.

Parental permission was necessary for the child to be admitted into the class and was obtained by the social worker attached to the project.

Instructional staff consisted of one teacher and a full–time team assistant. Others working directly or indirectly with the children included: (1) a 12–hour a week observer, (2) a social worker, (3) a psychometrist, and (4) the director of the program. Also involved were a music teacher and four high school students who were used as companions for the students. Other members of the faculty worked with the children in their classrooms for varying periods of time.

Staff meetings were held each week to discuss procedures, objectives, and specific problems regarding the children. The daily routines established primarily focused on individualizing instruction and dispensing reinforcers. Individual daily assignments were placed on each child's clipboard. These assignments were designed to meet the immediate academic needs of each individual child. Each day's assignments were dependent on the degree of success the child achieved the previous day. Pages in a book or a workbook were written on the assignment sheet or the pages to be completed were clipped on the board.

A wide variety of materials was used to individualize the instruction of the children in the class. Programmed instruction books were used when available. The Sullivan programmed reading series was used as a basic series with other workbooks as a supplement. Singer's Textbook and/or Workbook was used for mathematics. Other workbooks, textbooks, and mimeographed papers were used to supplement the series.

Children earned points for the completion of the academic work. Points were only given for academic work. For all non–academic behaviors "credits" or one–third of a point was the medium of exchange. A concept of "owed time" was used and had the same value as credits, namely one "owe" equaled one credit. A point allowed one minute of earned time. This earned time could be used for items of individual interests, field trips, parties and other motivating activities. The device used to facilitate reinforcement for both positive academic and non–academic behavior was called the time sheet. For non–academic behaviors a list of desired behaviors was used to define the specific behavior being reinforced or extinguished. Academic work was reinforced on a variable ratio according to the amount of work done by the child. Each assignment was corrected at the student's desk by the teacher or the team assistant. Only correct responses were marked, with no mark being given for incorrect responses. Reinforcements or points were given only after all responses were finished correctly.

The length of assignments, the number of assigned tasks, and the order in which the assignments were completed were all individualized. Some of the more responsible children were able to dictate the order of their assignments, while others were dependent on the teacher.

The child would keep a library book handy and read it while waiting for assistance from the teacher. This provided for constructive use of time and made an easy identification process for those needing help.

The class rules of behavior and order were minimal at first and consisted of the children being required to stay in their seats during work periods, signing in and out when leaving the room and not bothering others during work periods. As the need arose the rules were ammended by using a class meeting. A general consensus of opinion, reached by open discussions, usually decided an issue.

Evaluation Plan:

All mathematics and language arts progress were to be graphed daily. The Walker Problem Behavior Checklist was to be administered on a pre– and post–test basis. The Stanford Achievement Test for mathematics and the Bond–Clymer–Hoyt Reading Test were to be administered on a pre– and post–test basis. A count of the number of children going through the program was to be made and compared with the number going through the program in the past.

Results:

The results can essentially be reported in two parts: (1) hard data as supplied by the project staff and (2) the opinions of the project staff relative to the work of the project.

One of the purposes of this Title VI program was to improve service to the students requiring this type of special class. Therefore, one would expect that more

students would be served and would be able to be returned to the reguiar classroom. The comparison of the number of students served during this Title VI project and those served during the previous year is available. In the previous year 16 students were served in the emotionally disturbed Parkrose classroom. In this project 24 students were served who were classified as emotionally disturbed. Eight additional student counselors were in the classroom. Last year three students graduated. This year one student graduated. Last year six students were evaluated. This year 29 students were evaluated.

The Walker Problem Behavior Identification Checklist was administered to seven students classified as emotionally disturbed, on a pre– and post–test basis. In every instance there was a sizable reduction in score achieved on the checklist. However, the pre–test score was administered by the classroom teacher who referred the child to the special class and the post–test was administered by the special class teacher. Table I shows the change in scores for the Walker Problem Behavior Identification Checklist.

One of the most important aspects for the class of the emotionally disturbed is the academic results achieved by these children. The academic results for this project are reported in a number of different ways. Table II shows the results of the Stanford Diagnostic Arithmetic Test on a pre– and a post–test basis. The pre–test was administered at the beginning of the program and the post–test was administered at the end of the project. Stanine scores are reported for concepts and computations and number fact raw scores are reported. Only one emotionally disturbed child had a complete set of scores reported for him. Seven of the eight student counselors have scores reported for them. An examination of Table II indicates that in every reported score there was an increase in concept stanine. With the exception of two scores there was likewise an increase in computation stanine. Of these two exceptions, student counselor number 12 maintained his position at stanine 9 whereas student counselor number 27 dropped from stanine 5 to stanine 4. An examination of the number facts, of which there were 40, shows a general

Table I

Walker Problems Behavior Identification Checklist - Scores

Name	Date	Score	Date	Score
1	10/20/69	61	10/9/70	12
2	1/21/70	12	10/7/70	2
3	10/14/69	25	10/9/70	21
5	11/20/69	19	10/8/70	12
7	10/31/69	42	10/8/70	20
9	10/29/69	27	10/8/70	0
10	3/2/70	38	10/5/70	23

Table II

Stanford Diagnostic Arithmetic Results

Emotionally Disturbed

Student		Concepts Stanine	Computations Stanine	Number facts: Addition	Subtraction	Multiplication	Division
3	Pre	2	1	29	14	3	--
	Post	4	2	38	34	11	9
6	Pre	3					
	Post	4					
			Student	Counselors			
21	Pre	5	4	40	37	33	35
	Post	6	8	40	39	37	35
22	Pre	5	9	40	35	35	31
	Post	8	9	40	39	40	38
24	Pre	2	2	40	29	28	17
	Post	5	7	40	38	33	26
25	Pre	3	4	40	35	27	16
	Post	7	7	40	39	38	31
26	Pre	2	1	40	35	15	10
	Post	4	5	39	39	23	23
27	Pre	6	5	40	40	36	37
	Post	8	4	39	39	40	40
28	Pre	1	1	36	26	11	6
	Post	3	5	40	35	22	14

improvement, especially in those areas where the children scored relatively low on the pre–test. Improvement of a major type was impossible to achieve with the students who scored quite high on the pre–test in these areas.

Table III and IV shows the results on the new developmental reading tests for intermediate grades (Bond–Barlow–Hoyt). Table III shows the results for the emotionally disturbed children and Table IV shows the results for student counselors. An examination of Table III shows that of the 7 children reported upon, 5 showed increases in average reading score ranging from .1 to .9. One child's average reading score remains the same and one child's average reading score decreased by .2. On the other hand Table IV shows that all student counselors had an increase in their average reading score. These increases varied from .2 to .9.

One of the indices of improved reading ability is the speed with which students are able to read and comprehend correctly. Table V and VI show mean responses per minute as computed monthly over the cost of the project. Table V shows the mean reading responses per minute for emotionally disturbed while Table VI shows the mean reading responses per minute for student counselors. The data indicated under the month of June is included although it represents in any instances only 4 or 5 data

points as opposed to anywhere from 10 to 20 data points for each of the other months. Therefore, the data for June is not considered as reliable as for the previous months. An examination of the two tables quickly indicates that the students increased the mean responses per minute to a sizable degree in every instance with the exception of two, student number 4 among the emotionally disturbed students, whose attendance was very sporadic, and student number 26 among the student counselors, who showed a sizable increase up through March and a decrease in the month of April.

The comments from various members of the staff are worth noting. There was concern about the three one–half days of evaluation. There is no doubt that these days were very valuable in the accumulation of academic data relative to the child. However, members of the staff felt that the children were on their best behavior during these times and consequently the inappropriate behavior described by the classroom teacher was not manifested.

Table III

New Developmental Reading Tests for
Intermediate Grades
Bond/Barlow/Hoyt

Emotionally Disturbed

Student		Word Recognition	Comprehension Significant Ideas	Comprehension Specific Ideas	Average Reading Score
1	Pre	4.5	4.5	4.5	4.5
	Post	5.0	4.2	5.7	5.0
2	Pre	3.4	3.1	3.0	3.2
	Post	3.4	3.3	2.4	3.0
3	Pre	4.1	5.0	3.5	4.2
	Post	4.6	4.8	3.8	4.4
4	Pre	3.4	2.4	2.9	2.9
	Post	3.4	3.1	3.3	3.3
6	Pre	[illegible]	2.3	2.3	2.5
	Post	3.1	3.5	3.5	3.4
7	Pre	4.5	4.3	4.0	4.3
	Post	4.3	4.5	4.3	4.4
8	Pre	3.9	4.7	3.6	4.0
	Post	4.4	3.9	3.7	4.0

The report submitted by the project mental health consultant talks to the subject of the return of the children to the normal classes. It is reported that this return to normal classes was not as rapid or as extensive as had been expected. The mental health consultant's report is quoted as an explanation for why this may not have been achieved:

Table IV

New Developmental Reading Tests for
Intermediate Grades
Bond/Barlow/Hoyt

Student Counselors

Student		Word Recognition	Comprehension Significant Ideas	Comprehension Specific Ideas	Average Reading Score
21	Pre	4.2	4.5	4.0	4.2
	Post	5.3	4.8	4.6	4.9
22	Pre	4.8	5.5	4.8	5.0
	Post	5.3	6.0+	5.7	5.7
23	Pre	4.5	4.7	3.4	4.2
	Post	4.5	4.8	4.6	4.6
24	Pre	4.6	4.7	3.2	4.2
	Post	5.2	3.9	4.2	4.4
25	Pre	4.2	5.3	4.2	4.6
	Post	5.7	5.2	5.5	5.5
26	Pre	5.0	3.7	3.5	4.1
	Post	5.3	3.7	4.6	4.5
27	Pre	4.8	5.2	4.0	4.7
	Post	5.2	5.5	4.2	5.0
28	Pre	3.4	2.8	2.9	3.0
	Post	3.9	3.5	2.9	3.4

"Some of the reasons for this might include, (1) the children admitted had behaviors of such severity they were not correctable in the time allotted. (2) Of the children admitted directly to the class from normal classes, only two were in attendance for anything approximating a full year (7 months), three others were there five months, one four months, and one only one month. About half of these will be ready for return after three or four additional months of instruction in 1970–71 school year. (3) Some children have been found to lack motivation to progress in order to return to a normal class which had unpleasant associations for them. The re–entry rate for these children progressing out of the highly controlled room was greater for them than for those children who were placed in the Transition Class directly from normal classes."

An interesting note is the time lapse between referral receipt and actual entry into the class. This amounted to approximately three months for Parkrose children and five months for children out of the district. This represents a drastic reduction in light of previous years' experiences. In previous years a period of up to one school year passed before a vacancy occurred.

Table V

Reading Data
Mean Responses Per Minute

Emotionally Disturbed Students

Student	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June
1	-	-	4.5	7.0	6.0	9.0	8.0	12.0	10.0
2	-	-	-	-	3.5	3.6	4.6	4.8	2.5
3	1.1	1.4	1.9	1.4	3.0	2.0	2.8	4.0	4.0
4	.5	.6	1.0	-	1.2	1.2	-	-	-
5	-	-	-	-	3.3	4.5	2.8	3.6	4.6
6	1.8	2.8	3.8	5.0	5.2	6.7	5.2	-	-
7	-	-	-	3.1	5.2	6.2	6.1	6.3	-
8	-	-	-	3.0	4.5	4.6	3.9	7.2	-

The utilization of normal children in a class such as this was the unique feature of this particular project. The academic results achieved by these normal children, the student counselors, has already been reported in this section. One must remember that these children were chosen for this project because they were having academic difficulties. Therefore, if their academic improvement was significant, the project was successful in the aspect of improving their academic performance. Another reason for having these children in the class was so that they could serve as models for the emotionally disturbed children. According to the teacher in the project the,

> "normal children in the group were crucial in changing the behavior of others. Their attitude was generally positive as they tried very hard to follow through with a plan presented to them as a model. Ignoring some of the behaviors when they occurred was difficult for these children, since their previous experience in classrooms had not taught them to do this. These normal children soon became able to reinforce the behaviors that were deemed desirable by the group. They became more aware of the importance of praising a person for a good job and seemed to enjoy the general positive feeling it gave them. The normal children were also used as reinforcers in that it would let a child who was doing a good job work with one of the student counselors. This gave him a measure of status and allowed him to see how a normal person might handle himself in a given situation. During the non-academic time, such as recess, P.E., and lunch periods, counselors were used as examples of good behavior. Counselors were also praised for good behavior during these times."

Table VI

Reading Data
Mean Responses Per Minute

Student Counselors

Student	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June
21	2.1	3.5	3.0	3.3	5.0	5.0	5.5	5.5	6.5
22	3.8	3.7	5.5	7.4	7.9	9.5	13.0	-	-
23	4.0	5.2	4.2	4.8	5.5	6.5	6.5	6.2	6.5
24	2.4	2.6	2.4	2.9	3.0	5.0	5.0	4.4	5.8
25	2.5	3.3	3.1	3.8	5.2	4.6	5.2	3.6	3.9
26	2.0	2.4	2.2	3.1	3.1	4.8	2.8	-	-
27	2.8	3.3	3.3	4.0	6.6	6.7	8.6	9.7	-
28	2.1	2.3	2.4	2.2	2.7	3.9	2.3	4.3	4.1

A perennial problem with special classes is the fact that the children are segregated and set apart, often times resulting in their being ridiculed or mocked by their peers in other classes in the school. The quotation from the project staff report is worth noting in this respect:

> "Students and teachers in the building that houses both classes have not always understood the program, and there has been some undesirable labeling and occasional scapegoating. Student counselors in the transitional room made it seem more like a regular class. Their acceptable behavior undoubtedly modified the negative image of the class, but they in turn experienced labeling and scapegoating."

Finally, parent involvement was disappointing. Meetings were considered not to be the most satisfactory way of dealing with the parents and one of the recommendations of the staff is that individual meetings with the parents would probably produce better results. The mental health consultant of the project reports that "parent attitudes generally reflected pleasure and satisfaction over the child finally achieving success in school along with changed home behaviors."

A general trend that ran through the various reports submitted indicated that it was desirable that the referring school had more involvement in the placement and more participation in effecting a return to the regular classroom. It also was felt that the referring school should have additional responsibility for follow-up after the child returns to the school.

A better understanding of the class is needed both by the teachers in the building in which the class is housed and by teachers in other buildings in other districts.

Third Party Evaluator's Comments:

The concept attempted in this particular project was novel in that it utilized normal children in a class with behavior problem children as models for those children. It was further novel in the sense that these children who were

chosen as models were in fact having academic difficulty and could utilize the individualized programs which were part of the emotionally disturbed class. According to the teachers' comments and the staff's comments, the utilization of normal children seemed to have a satisfactory effect in the sense that they provided a good model for the emotionally disturbed children. They were not successful in reducing the amount of scapegoating or name calling engaged in by students who remained in the school.

Whether or not the additional of normal children into this class produced a significant difference in the behavior of the children or their progress in the class cannot yet really be determined. The data available indicate that fewer children were returned to the normal class. This has been explained by the fact that there was insufficient time to have the children return to their class and that it is expected that within the first three or four months of the new school year these children will eventually be returned.

It is believed that the inclusion of normal children in a behavior problems or emotionally disturbed class can only be proven by significant decrease in the time in which the emotionally disturbed child spends in the special class. One year is not a sufficient length of time to evaluate this aspect of the project. It is hoped that the project staff will report the results of this aspect of the project in future meetings and in professional papers so that others may benefit from their experience in this experimental model.

Some aspects of the program, however, show some very definite improved procedures. These are reflected in the fact that there is less waiting time for admission into this type of special class; more children were evaluated for possible inclusion in the special class – in fact, the number of evaluations was markedly increased over the previous year during which only six students were evaluated as opposed to 29 being evaluated this year; finally, more students were served in this experimental class. The latter fact may explain why the waiting list time was reduced.

The concern which the project staff showed about the lack of inappropriate behavior during the evaluation period is believed to be unwarranted. First, the project staff had through means of their observers which they had sent to the child's regular classroom from which he was being recommended the opportunity to have an additional evaluation other than the teacher's as to the behavior of the child. Certainly this observation was much more valuable than the three half–day observations that they would have of the child's behavior in a strange environment. Second, the three one–half days evaluation period should have been utilized primarily for academic evaluation so that the child's proper placement in the program could be determined. It is believed that this type of evaluation was adequately conducted during this period. Third, it is almost axiomatic with behavior problems classes that children who are brought into the classes will not always exhibit, at least during the first few weeks of the class, the behaviors which they exhibited in the normal class. There are a number of reasons for this: the environment is much more structured; the enforcements are much more powerful; and the individualization of programs present the child with work which he can realistically accomplish and with which he can achieve success. Thus, by the very nature of the class their behavior will have changed.

The Walker Problem Behavior Identification Checklist data although interesting, really provided little useful information. It is believed that these data were incorporated at the suggestion of the third party evaluation team, but a notation is made here so that the inclusion of this type of a checklist should not be repeated in the future where two different teachers are in effect reporting the behaviors in two totally different environments. The utilization of the Walker Problem Behavior Identification Checklist would be better if the checklist were obtained from a teacher in a regular class after the child had been returned to that class and had been functioning in it for approximately a period of three months. That teacher's evaluation could then be meaningfully compared to the evaluations submitted by the referring teacher, for this then would demonstrate perhaps the effectiveness of the special class in modifying the child's normal classroom behavior.

The academic data reported for the children in this program indicate a general improvement. The gains made by most children in the program were satisfactory. Certainly the gains made by the student counselors indicated that the structured individual program allowed them the opportunity for academic success, which was one of the objectives of the project.

Finally, the tentative results of this project indicate a successful project. If the project is able, in fact, to return children at the early part of the 1970–71 school year to the regular class as planned, they will have certainly demonstrated that this special class is achieving its purposes. Only long range data can indicate whether or not the inclusion of normal children in this type of class is a worthwhile addition.

Project Title: *Establishing a Class for the TMR in Umatilla County*

Type of Project: *Trainable Mentally Retarded*

Location: *Pendleton*

Funding Allotted: *$15,963*

Number of Children Served: *10*

Background and Rationale:

Historically, the Umatilla County I.E.D. had attempted to establish a class for the TMR child in the public schools of that county for several years. This goal had not been achieved because of insufficient funds. This goal was achieved when Title VI funding was secured. Consequently, the goal of this project was to select and train ten TMR students with the class being located in a public school setting. The areas of curriculum were to include self–help skills, social skills, speech and language development, and motor development.

Objectives:

General objectives of the Project were:

1. To establish educational services for the school–aged Trainable Mentally Retarded in Umatilla County.
2. To teach specific personal, intellectual, motor, and social skills necessary to allow Trainable Mentally Retarded students to attain their potential and enter the mainstream of society.
3. To develop, in conjunction with other agencies and individuals, a home–community environment that will accept these students into that mainstream.

Specific Objectives of the Project were:

1. To secure a classroom site, properly furnish it for the education of the Trainable Mentally Retarded, and staff it with trained and interested individuals.
2. To teach specific behaviors found to be deficient in those students enrolled in the class, such as:
   a. Learning simple and necessary daily living skills
      1) Dressing himself – tying shoes, clothing neatness and cleanliness, hanging up clothes
      2) Bathing habits – washing hands and face, brushing teeth, combing hair
      3) Eating habits – table manners, waiting for others to be served, not overfilling plate
      4) Simple cooking skills – turning on stove, boiling, frying, washing dishes
      5) Use of money
   b. Simple academic skills related to daily life
      1) Self–direction – learning signs such as "Stop," "Walk–Wait," "Men," "Women"; learning directions; meeting strangers; discovering the community, such as stores and service personnel; awareness of time, such as when to start and when to stop activities; use of leisure time, such as learning quiet and active games
      2) Self–identify – writing name, use of good speech and language, use of telephone, use of numbers, letters
   c. More complex academic skills
      1) Reading: alphabet, basic words, experience stories
      2) Arithmetic: counting and adding, and higher math functions
      3) Writing: copying, printing, writing letters
3. To counsel with parents about their children and their needs. To discuss with parents their child's progress, and the methods used in meeting instructional objectives. To help parents in assisting the child by working both with the parents and with the community.
   a. Set up regular teacher–parent conferences
   b. Demonstrate teaching methods useful in training the child in specific behaviors. Give parents specific assignments to complete, then determine if they completed the assignment
   c. Invite community agents to observe class activity
   d. Report class activity to community organizations; discuss possible activities in which the community might participate to support class activity.

Methodology:

This project was conducted from September 1, 1970 to June 5, 1970. Classes were held from 9:00 a.m. to 2:30 p.m. five days per week. The class included ten children ranging in age from 9 to 19 years and was held in a regular classroom in a public school in the Pendleton School District. Staff included a teacher, teacher aide and various consultant staff from the Umatilla County I.E.D. These included a psychologist, speech therapist and a consultant in behavioral management.

The ten students were selected from a list of 45 referrals. This selection was based on test information submitted by the various consultants involved. The classes were initiated on September 24, 1970 with three students attending initially. Other students were enrolled as the staff achieved greater competency to handle larger numbers of students.

Transportation was provided by the parents and classroom staff on a mileage reimbursement basis.

Because of the wide range of individual differences in each student enrolled in the class, curriculum was individualized for each student as much as possible.

This was possible by utilizing other regular students from the project site school to be used as teacher aides and carrying out prescribed programs with various TMR students. Other volunteer groups were also utilized in various phases of instruction. These included Umatilla County Association for the Retarded, Committee for the Rehabilitation of the Handicapped, student groups from the local high school (Spades) and a group from Blue Mountain Community College.

Parent conferences were conducted on a regularly scheduled basis to keep the parents informed about their child's progress on the various programs that he was involved in. Staff from Eastern Oregon Training Center were also used as a resource to counsel parents and students.

Evaluation Plan:

A pre–post test battery was given each child. This was administered by the school psychologist for the Pendleton School District, and consisted of a Stanford–Binet, Peabody Picture Vocabulary Test, the Bender–Gestalt, the Wide Range Achievement Test, and Vineland Social Maturity Scale. A pre–post assessment was made on articulation using the Arizona Articulation Proficiency Scae and a generalized assessment of ability using the Gunzburg Progress Assessment Charts. Pre–testing was also done on vision with the Snellen charts, and hearing using standard audiometric procedures. In addition to such standard measures, daily rate counts were initiated and maintained using 6–cycle log paper upon which selected behaviors were charted.

Results:

The pre– and post–test results are reported in Table I. The pre–test period extended from late September through October 15, 1969. The post–test period was from May 15 to June 3, 1970. Two of the children, P. K. and L. K., were not given pre–tests as they did not come into the class until April and May of 1970, consequently post data only was available for them. Four of the children showed gains on the Stanford–Binet ranging from three to twelve IQ points. Three others remained virtually the same. Three children showed gains on the Peabody Picture Vocabulary Test ranging from five to eighteen points on the IQ score. Only two children were given pre– and post–tests on the Vineland Social Maturity Scale. One showed a significant increase of two years and R.W. remained the same. On the Bender–Gestalt four children showed gains, one remained the same. The gains ranged from one month up to five months. On the Arizon Articulation Test, five of the children showed gains ranging from five points to 27 points toward closer intelligibility of consonant and vowel sounds used in speech. On the Progress Assessment Chart all children showed gains ranging from 9 to 18 new skills acquired. Generally gains or losses on these standardized tests are not significant, as each of these standardized instruments could not measure the subtle changes made in the behaviors of these children over a nine–month period.

In addition to these objective scales several individual programs were run on each child using 6–cycle log paper to graph and demonstrate changes in behavior. The results of these are reflected in the teachers reports for each child. In addition, subjective observations by the teacher are also recorded. The teachers evaluation of the project is organized into individual report describing the progress of the children. These reports are summarized as follows:

R.W.

Chronological age 17. R.W. was Mongoloid. She was also very obese and very inactive. She had some speech but was difficult to understand. She did not like to socialize with the other children She had poor coordination and could not participate in active games such as jumping rope. The teacher reports that R.W.'s greatest gains this school year are improvement in the ability to attend to a task and willingness to accept help and direction from the trainers. Her speech and language has not improved significantly, thereby making it difficult for her to socialize with other children. One of the behaviors that was charted on 6–cycle log paper was that of sitting idle during academic sessions. R.W.'s baseline for sitting idle during 240 minutes of classtime was ranged from .008 to .025 movements per minute. By December this behavior had been reduced to zero and from that point on was put on a maintenance schedule and checked weekly for the rest of the year and was found to be reduced to near zero movements per minute for the remainder of the year.

A second behavior that was eliminated was chewing her fingers. Baseline on this on November 3, 1969 was .003 movements per minute. By November 24 this had been reduced to zero for three consecutive days. By December 12 R.W. showed ten consecutive days without chewing her fingers at all. This behavior was also put on a maintenance schedule for the remainder of the year, checking it once weekly and was able to maintain zero movements per minute. A third behavior to be decelerated was yelling loudly when teased. The rate per minute of this behavior was reduced from .015 on October 27 to zero by December 2. At this point the behavior was put on a maintenance program and checked weekly for the remainder of the year and found that extinction maintained over the rest of the year.

Another program that R.W. worked on was that of the deceleration of her rejecting instruction. She was put on a program where each time she rejected instruction she was ignored for 10 minutes. Baseline reported for this behavior was .004 movements per minute on November 17, 1969. By December 15, 1969 this behavior was reduced to zero movements per minute and was at this point put on a

Pre and Post Test Results on Stanford-Binet, WRAT,-
PPVT, Vineland Social Motivity Scale, Bender-Gestalt,
Arizona Articulation, Gunzberg PAC

Child	Stan-Binet Pre	Stan-Binet Post	D	WRAT Pre	WRAT Post	D	PPVT Pre	PPVT Post	D	Vineland Pre	Vineland Post	D	Bender-Gestalt Pre	Bender-Gestalt Post	D	Arizona Artic. Pre	Arizona Artic. Post	Arizona Artic. D	PAC Pre	PAC Post	PAC D
1. R.W.	IQ29+	IQ28	-1	RE-K6	RE-K8	+2	IQ26	IQ37	+11	SA7-6	SA7-6	--	MA5-9	MA6-0	+.1	51	35.	-15	65	83	-18
CA17-3	MA4-5	MA4-8	+.3	N-K6	N-K9	+3	MA3-6	MA4.7	+1.1												
2. C.H.	IQ39+	IQ42	+3	RE-PK8	RE-PK7	-1	IQ54	IQ59	+5	SA8-3	SA10-3	+2	MN5-1	ML5-0	-.1	7.5	28	+20.5	77	94	+17
CA13-6	MA4-5	MA5-1	+8	N-N5	N-PK2		MA5-10	MA6-8	+10												
3. D.S.	IQ57	IQ55	-2	RE-4-4 SP3	RE5-0	+6	IQ78	IQ78	--	SA7-8	--	--	ML5-8	ML6-0	+2	100	--	--	95	109	+14
CA13-1	MA6-10	MA7-0	+4	N-1.4	N-1-2	-2	MA9.4	MA10-2	+3												
4. E.S.	IQ18	Below 30	+12	NR	NR	--	IQ16			SA4-7			ML Below						26	42	+16
CA13-3	MA2-5	MA2-8	+.3				MA2-5	MA2-3	-2				3	ML3-0	--	NR	27	+27			
5. N.K.	WAIS	WAIS		RE-4-4	RE-4-6	+2	IQ59	IQ55	-2	SA8-5	--		ML7-0	ML7-3	+.3		86.5			112	
	V-68	V-65	-3	SP-3																	
	P-66	P-69	+3																		
CA19-3	FS-66	FS-65	-1	N-1-5	N-1-9	+4	MA8-9	MA7-10	-11												
6. G.F.	IQ20			--	--					SA4-5			ML5-0			0	15.5	+15.5	44	53	+9
CA16-7	MA3-1						MA2-7														
7. B.R.	IQ44	IQ50	+6	RE-PK1	Kg-2		IQ44	IQ62	+18		SA7-0		ML4-5	ML4-10	+5	81	86	+5	79	94	+15
CA9-1	MA4-2	MA5-0	+.8	N-PK6	Kg-3		MA3-10	MA5-2	+14									+27			
8.*P.K.		IQ34			RE-K2			IQ55			SA8-3			ML6-0						97	
CA18-0		MA5-10			N-PK8			MA7-8													
9.**L.K.		IQ Below 30			RE-K1			IQ42			SA6-3			ML4-6						72	
CA16-6		MA4-9			N-PK6			MA5-1													

* Entered class 5/25/70 - Only post data available
** Entered class 4/24/70 - Only post data available

maintenance program and checked only once weekly for the remainder of the year. Extinction was maintained during that period.

On April 28, 1970, R.W. was put on a program to increase correct answers to addition problems, adding numerals from zero to ten. She was to receive one M&M for each five correct addition problems. On April 28, 1970, her rate was .9 movements per minute during a 10–minute session or 9 correct answers to addition problems. By June 3, 1970, her rate had increased to 2.5 problems per minute, or she was able to do 25 problems correctly within a 10–minute period.

R.W. was also involved in a program in copying written letters of the alphabet on lined paper. She was to receive one M&M for each five correct formations. On April 13, 1970, she was able to correctly form 5.1 letters per minutes within a 10–minute session. By June 3 she was working at a rate of 4.8 movements per minute. While her rate of speed at producing correct formation of letters did not increase, her incorrect formation of letters was also reduced from .8 movements per minute on April 13, 1970, to .20 on June 1, 1970.

N.K.

N.K. has attended the class from March 25, 1970, to June 4, 1970. N.K. was accepted into the class to act as a student aide. N.K. did not respond to the idea of teacher's helper but rather saw herself only as a student. In the short time that N.K. had attended the class, the teacher reported that she had lost some of her fear of strange places and people. She talked more, she joined the other children during recess, she played table games, worked puzzles, learned to sew buttons on, and sewed a head scarf for herself with some limited supervision. She was also able to cut a simple pattern from material with assistance. Observations concerning some academic tasks that N.K. was able to do are as follows: 1) she reads at fourth grade and understands what she reads, 2) language is well developed but speech is somewhat defective, 3) she is able to write and her spelling is at about third grade level, 4) she can count up to 100, 5) she can handle simple arithemtic problems at the second grade level, 6) she understands the days of the week and months, 7) she can tell time.

B.R.

B.R. was one of the original three class members who were enrolled September 24, 1969. He has good speech and language development with a large vocabulary but is frequently unintelligible. By December 18 B.R. was making improvements in written alphabet. He learned to sight–read. By April 9, 1970, B.R. read 20 sight words and can print them when asked to do so. The teacher reported a noticeable improvement in his motor development during the year. B.R. was involved in several individual programs during the year.

On correct letter formation when writing words, B.R.'s rate per minute on October 20, 1969, was 2.5. Reinforcement was administered by giving him one M&M for each two words formed correctly. During November his rate went up to 3.40 movements per minute. In December it went up to 10.30 movements per minute, and in January 11.50 movements per minute. For the remainder of the year his rate per minute on correct letter formation did not significantly improve. However, incorrect letter formation decreased from 1.20 movements per minute on November 3, 1969, to .1 movements per minute by June, 1970.

On the task of counting objects, B.R.'s rate per minute responses was 1.0 in April, 1970. By June 3, 1970, the rate per minute was 2.3. On another program of creating unnecessary noise in the classroom his rate was .013 interruptions per minute on November 12. By December 23 this was reduced to .004 movements per minute, and in January was reduced to zero. Generally the zero rate was maintained until March, 1970, whereupon that time it was put on a maintenance schedule and checked weekly where it was demonstrated that his movements per minute remained at zero for the remainder of the year. In another program called Teasing Other Children, his rate in November, 1969, was .003 movements per minute and by January had been reduced to zero and was maintained for the remainder of the year.

P.K.

P.K. entered the class on May 25, 1970, but was in the class for such a short time it was very difficult to determine what gains she had made. Her speech is intelligible, with some substitution, omission and distortion of consonant sounds. She can print her name and copy letters fairly well. She does not read. She was cooperative and willing to perform tasks asked of her. It was recommended that P.K. be put into a sheltered workshop to receive training, as she is at a chronological age of 18 years.

L.K.

L.K. entered the class on April 24, 1970, and so was involved in the class for less than two months. Information was gathered on her ability to function in a classroom setting. It was found that she did very poorly generally with academic work. She had very poor coordination of the large and small muscles. Her language and speech development are the strong points of her past training. She neither reads nor writes and has a very difficult time trying to form letters and numbers. During the class period she has learned to form the letters "l", "o", and "i", but has difficulty forming the letter "s".

C.H.

Chronological age 13. C.H. is one of the original three class members enrolled September 24, 1969. He has very little speech but can communicate pretty well using gestures and sounds. C.H. has received very excellent self–help and vocational training in the home. He and his father jointly operate a janitorial service. He has the ability and coordination to operate all of the required equipment. Most of C.H.'s classroom training has been concentrated on speech and language development. In class C.H. cooperated

and attempted most activities. He was very sociable, and is well coordinated. On April 29, 1970, C.H. was started on a program of writing his name correctly. On that date his movements per minute were .3. By June 3 his movement per minute on this task was .4. While significant gains were not made on this task, his incorrect formation of letters while writing his name was reduced from .7 movements per minute on April 29, 1970, to .2 movements per minute on June 2. On a task of counting objects, C.H.'s rate per minute was 1.7 on April 28, 1970. On June 3, 1970 his rate per minute was 1.5.

On another task called reducing temper tantrums his rate per minute was 1.5 on October 16, 1969. By November 6, 1969, this had been reduced to .05 movements per minute. By December 9 this had been reduced to zero, and it was at that point put on a maintenance program and left there for the rest of the year and was maintained at or near zero movements per minute for the remainder of the year.

Another program was initiated to reduce the behavior of abusing another child in the classroom. His rate per minute on October 27, 1969, was .008 movements per minute. By December 1 this had been reduced to zero and was maintained there through the month of January. At this time it was put on a maintenance program and was maintained at or near a zero rate for the remainder of the year.

Another program was that of teasing other children. On October 27, 1969, his rate per minute was .013 movements per minute. By November this was reduced to .003 and by December 10 was reduced to a zero rate. This was maintained at a zero rate until January where it was put on a maintenance program and was maintained at zero for the remainder of the school year.

E.S.

Chronological age 13. He was added to the class of October 6, 1969. He had very little speech and language. At the beginning of the year E.S. did not participate in a group. He was very noisy vocally. He worked for very short periods of time and required constant attention. He was not cooperative most of the time. He slapped and kicked other children frequently. The other children avoid E.S. because of his behavior. By December 15, 1969, E.S. could now set at his desk for periods up to 10 minutes. By February this had increased to 20 minutes during each working period. Playground behavior had improved considerably. He still did not want to play with other children, but by this time he did them alone and did not try to hurt them. By March it was observed that he was making fewer noises and more meaningful speech sounds. He asked to have his coat zipped, shoes tied, and to go to the bathroom. By March he still did not button or snap his pants but did zip them up. Greatest gains during the year were in social behavior, primarily his ability to get along with other children. He has had the greatest difficulty in those areas that required the use of pencil, crayons or scissors. Motor coordination is very poor and he is therefore unable to use these tools acceptably.

E.S. was involved in three individual programs during the school year. Program 1 was one of getting him to find and participate in acceptable self–entertainment, by getting him to do something during free time. In October, 1969, this did not occur. The rate per minute was zero. By February it was recorded at .019 movements per minute and was at that time put on a maintenance schedule and was maintained at that rate for the remainder of the year.

The other program was that of reducing the number of times that E.S. shook and banged his silverware during meal times. On November 3 and 4 this was occurring at a rate of 1.70 and 2.00 movements per minute. By January 15 this behavior has been reduced to zero. It was maintained near zero during January, February and March. On March 25 it was put on a maintenance program and checked once weekly for the remainder of the year. The data indicated that the behavior was reduced to zero and maintained there during this period.

The third program for E.S. was that of making unnecessary noise while traveling to and from school in the car and in the classroom. His rate per minute on October 20, 1969 was 11.26 movements per minute. By December this had been reduced to .40 movements per minute. In March it had been reduced to .20 movements per minute. In April it was maintained at zero. During April it was put on a maintenance program being checked once weekly and was maintained at zero for the remainder of the year.

G.F.

Upon admittance to the class, G.F. had spent long periods of time by himself. Consequently he did not want anyone near him. He drew away from any physical contact and was very sensitive to noise. His attention span was very short. He exhibited rocking behavior almost constantly. He did not seem to know how to participate in any inside or outside games or activities. He could write his name, write his alphabet, several words and his numbers up to 50.

Little progress has been noted academically in any of the programs with G.F. over the year's time. One program was initiated with G.F. during the year. On February 20, 1970 his rate per minute was .008 on working on self–selected activities. By March 11, 1970, this had been increased to .017 rate per minute. In April this rate was increased to .021 and at that time was put on a maintenance program and checked once weekly for the remainder of the year. The rate per minute was found to have been maintained at a rate of .020 for the rest of that year.

D.S.

D.S. has been a difficult child to work with over the years. He did seem to respond to social praise or positive rewards. Threats of punishment seem to work best in terms of getting him to produce certain behaviors. These punishments include: threat of having no recess, no second helping for lunch, or no lunch at all. D.S. was involved in a

program in writing lines of words correctly. His rate of correct response on March 24 was .7 movements per minute. On June 3 his correct response rate was .8 movements per minute, showing no gain in his rate of copying lines of printed material correctly.

On another program of correctly adding digits from zero to 10 his rate per minute on April 28, 1970, is 1.6. On June 3 this had increased to 2.8 movements per minute. On three other programs beginning in January, one called "Doing What He Is Asked To Do", another called "Quiet Time in the Classroom" and a third called "Nose–picking". Rates of all three of these behaviors were reduced to zero by March, 1970. All three were put on a maintenance program and were checked weekly for the remainder of the year and were maintained at a zero rate per minute for the remainder of the year.

Third Party Evaluator's Comments:

In general this project did accomplish many of the objects that were described in the proposal. Specifically, they did establish educational services for school–age, trainable mentally retarded in Umatilla County. They underwent many adversities in getting this class initiated as many of the parents of the "normal" children in the school district where the class was housed were against having TMR children within their building. However, through a series of sessions which provided information about the trainable mentally retarded population, these fears and objections were alleviated, and by the end of the year the school district supported the trainable class. TMR children were placed in many of the classes with the normal children, especially in the areas of physical education, art, music, and library. In addition to placing special class students in regular classes, they also reversed the procedure and placed regular class students in some programming designs for TMR students. Students from all classrooms in this building were in the TMR class at various times for a variety of activities. Most activities were designed for social interaction only.

Specific gains in the three curriculum areas: Self–help skills, motor development, and language development were minimal both on the pre– and post–standardized tests and on gains subjectively reported by the classroom teachers. When individual programs were developed using reinforcement gains were made and maintained over the year's time. Unfortunately, this individual programming technique was applied to the three major curriculum areas on a minimum basis. Most of these individual programs were not initiated until March or April of the school year. It is unfortunate that individual programs were not applied to more academic tasks earlier in the year. However, it should be emphasized that for a first year program this was a commendable performance.

Parent interaction during this project was significant. As many as six and seven individual parent conferences were conducted with most of the parents during the year. Generally their reactions were very enthusiastic positive ones, and based upon this it would seem reasonable that the parents could have been utilized to assist in the teaching of their children by being given individual programs to carry on with their children in the home setting.

It is recommended by the third party evaluators that the presentation of individual programs, the recording of the responses made by the children, and the delivery of reinforcers or correct response be expanded to all programs presented to the children in the classroom. It is futher recommended that these individual programs be maintained in the home as well as at school.

Sufficient interest has been generated through the completion of his project for the 1969–70 school year, that local school administrators and boards have agreed to participate with the mental health division in establishing the regular classroom for the trainable mentally retarded. The class will continue to meet in the same building that it operated in last year. It will be staffed with the same teacher and teacher aide that served during the operation of the Title VI project. It is apparent that without the use of Title VI funds this class could not have been initiated at least on the time schedule that it was initiated. It was also through the use of funding of Title VI that this program was staffed with adequate personnel so that a successful program could be developed.

Project Title: *1969–1970 School Year Follow–Up of Program on Students Completing An Intensive Period of Speech and Language Therapy*

Type of Project: *Speech*

Location: *Umatilla County Intermediate Education District, Pendleton*

Funding Allotted: *$23,780*

Number of Children Served: *99*

Background and Rationale:

Meadowwood Springs Speech Camp provides an intensive therapy program for language handicapped children. During the 1969 summer program campers spent from two to six weeks in camp. During this time the children received daily individual and small group work, with an extended emphasis on their newly learned speech and language skills throughout their waking hours. The camp program is characterized by an emphasis on precise behavioral assessment, and the careful structuring of therapy events in the child's environment. This allows for careful analysis of the effect of therapy approaches on the child's language behavior, enabling a precise determination of methods found to be successful. The population involved in this summer camp are children who are referred by public school speech therapists and other agencies from around the state of Oregon.

Pre–post data of the last two years indicate a significant positive change in major language performance as a result of the camp program. Staff at Camp Meadowwood Springs have been concerned that the gains made during the summer camp therapy program are not maintained when the children return to their respective school districts and begin therapy with local speech therapists. With the significant gains made by the children in the speech program it would appear imperative that the procedures employed to effect these changes be effectively transmitted to the home community therapist for implementation. Consequently, this project was initiated to determine if the gains made by the children in the summer program were maintained after they returned to their home community and to provide speech therapists around the state of Oregon with workshops which included the procedures and techniques used to train these children during the summer camp experience at Camp Meadowwood Springs.

Objectives:

The general objective of this project is to provide a personal follow–up during the school year to all children attending the summer clinic at the camp so that a greater consistency is provided in their total therapy program. The specific objectives of the project are:

1. To meet with the referring therapist and to communicate in greater detail the diagnosis and therapy plan devised at camp.
2. To meet with the involved parents of those children attending the camp in the therapy sessions in a more central way.
3. To assess the permanency of gains made at the camp once the child returns to his home community.
4. To identify as many of the variables as possible which operate in the generalization of skills gained at the camp and used in the schools, home, and community.
5. To train referring therapists, parents and other interested professionals and lay people in communities throughout the state in the intensive precision methods used in this particular camp therapy program.

Methodology:

This project was initiated on September 1, 1969, and continued through June 30, 1970. Staff included a project director, who is the agent for the Title VI funds. His duty was to monitor the operation of the project and its evaluation phase. There was also a camp director whose duty was to conduct the project to include assessment of the children, counseling and training of the professionals and parents, and the evaluation of the total project.

This project was carried out in a series of two visitations to each camper enrolled in the 1969 summer session. During these visitations the following activities were carried out:

1. A workshop was conducted for the referring therapist and other interested professionals to explain the materials and methods used in the camp program.
2. A follow–up test battery was administered to each camper.
3. Conferences were conducted with the referring therapist regarding the camper's experiences and final report.
4. Conferences were held with the parents.

Time planned to carry out these activities was approximately one–half day per camper. This varied depending upon the distance to be traveled and the number of campers in one location.

Local arrangements were made for the test program by writing directly to the referring therapist. Arrangements for the workshops were made through a local professional advisory committee member to Camp Meadowwood Springs.

The state was divided into eleven geographical areas, with at least one workshop scheduled for each area. The first geographical area visitation was scheduled during the week of October 13. See Figure 1 for entire schedule. Approximately one-half day per student was allowed for testing purposes. The other activities of parent and therapist interviews were scheduled around the testing program and the workshop. Ninety-nine campers were included from the 1969 camp session in this follow-up. Sixty therapists were interviewed during the visitations. The workshop was conducted fourteen times with a total of 170 participants. See Figure 2 for a breakdown of the workshops that were held and the dates, places, and number of participants.

The intent of the workshop presentation was to present the kinds of tools and techniques used in the camp setting to referring therapists and other interested participants. The material covered in the workshop included the following:

1. Assessment and analysis. Precision teaching was presented as an assessment technique and a means of environmental analysis. This material was presented during the first period of the workshop to provide a suitable orientation for what followed.
2. Programming techniques. The concept used in planning for behavioral change based upon behavioral objectives as used in the camp were covered.
3. Specific programs used in the camp. These included those programs constructed in the camp, those constructed by other professional individuals, and those programs available commercially.
4. Environmental management. This included a discussion of the measures which might be undertaken in the home community to effect the kind of environmental management possible in a residential setting as found at camp.

The workshop was conducted in two afternoon sessions and one evening session. The material was written to cover about five hours. Some area participants, however, were unable to give this much time in the workshops, and so in some cases they were modified to fewer sessions and less time. A number of materials were handed out at each workshop.

In the session with the child, the test battery took between one and one-half hours to two hours to

Figure 1

VISITATIONS

No. of Therapists Seen	No. Tested	Week Of	Towns
4	4	October 13	La Grande, Nyssa
3	9	October 20	Hermiston, Irrigon, Pilot Rock, Umatilla, Ione
4	8	October 27	Pendleton, Milton-Freewater, Athena
7	6	November 3	Eagle Point, Myrtle Creek, Medford, Grants Pass, Cave Junction
2	5	November 10	Lincoln City, Newport, Eddyville
3	5	November 17	The Dalles, Wamic, Bend, Prineville
3	6	November 24	Sheridan, Colton, Salem
5	8	December 1	Corvallis, Junction City, Dexter, Oakridge, Florence
5	8	December 8	Eugene, Florence, Lowell, Springfield
5	10	January 12	Portland
6	11	January 19	Portland, Aurora
6	11	January 26	Portland, Milwaukie
7	8	February 2	Astoria, Warrenton, Tillamook, Beaverton, Banks
60	99		

February 16 - SECOND VISITATION PERIOD STARTED

Approximately same sequence and time period as above.

Figure 2

WORKSHOPS CONDUCTED

Dates	Town	Participants
October 14-15	La Grande	4
October 16	Nyssa	9
October 21-22	Pendleton	10
October 22-23	Pendleton	15
November 4-5	Medford	11
November 12-13	Newport	8
November 20	Bend	5
November 24	Salem	9
December 1	Corvallis	17
January 15	The Dalles	11
January 16	Portland	30
February 6	Beaverton	24
February 11	Astoria	5
March 6	Lynch	12
		170

administer. The instruments used included those measures used in the pre– post–test battery in the camp, plus the Peabody Picture Vocabulary Test. The parents of the children were contacted to determine their response to the child's camp experience and their contact with camp personnel. A follow–up questionnaire used previously was sent out to all the parents before the camp visitation to gather additional information. The parents were asked to specifically indicate whether or not they were given information to continue the work accomplished at camp. Additional impressions were also solicited regarding the general camp experience.

The therapist working with the child at the time of the follow–up visitation was contacted for an interview. During this time the therapy report and recommendations were covered and their adequacy determined by the home therapist. At this time also the results of the testing were interpreted to the therapist. Following the therapist interview a report was left with him to be sent to the project director. Final contact with the home community therapist was made through correspondence. Appropriate letters and report forms were sent to the speech therapist and teachers of the deaf. A copy of the test summary sheet was also sent upon request of the therapist.

Evaluation Plan:

A pre– post–test was given to the participants of each of the workshops covering the concepts contained within the workshop. See Figure 3 for a copy of the pre–post–test given to these participants.

Each test administered to the campers is discussed below regarding the nature of the instrument and its significance.

1. Arizona Articulation Proficiency Scale. This is a test which measures the ability of the child to articulate speech sounds. It yields an intelligibility index on a percentage scale.
2. Self–Hearing. This was a test devised in the camp based upon the Arizona Articulation Proficiency Scale. It has subsequently proven to be invalid and is not included in the project evaluation.
3. McDonald. This test examines the effect of adjacent sounds on a child's error sound. It is administered only to those children with articulation defects.
4. Phoneme Error. This is a count of all phoneme errors in a child's conversation. The sample is for three minutes. The score is a rate of errors per minute.
5. Dysfluency, Two–Minute Reading. This is a count of the number of stuttering episodes in a two–minute period of oral reading. The score is a rate of stuttered words per minute.
6. Dysfluency, Three–Minute Conversation. This is identical to No. 5, except that the child is speaking in conversation rather than reading.
7. Basic Concept Inventory. This is a measure of language ability as constructed by Siegfried Engelmann. It yields a score of errors ranging up to 118.
8. Wepman. This is a test of auditory discrimination.
9. Audiometric.
   a. Average Pure Tone. This yields a threshold of hearing acuity for pure tones at the speech frequences which are 500, 1,000 and 2,000 cycles per second.
   b. Speech Reception Threshold. This is the hearing level in decibels at which an individual hears 50% of a prepared list of words.
   c. PB Per Cent in Conversation. This is the percentage of words a child is able to discriminate at a comfortable level of amplification.
   d. Most Comfortable Level. This is the decible level at which a child most comfortably discriminates the words in a PB Percentage Conversation List.
10. Rating Scale. This is a subjective evaluation of a child's behavior. It is based upon a percentage scale constructed by Hill Walker at the University of Oregon. Several items were added and some others modified to meet the camp setting. The classroom teacher was asked to fill this out for the follow up program.
11. Peabody Picture Vocabulary Test. This yields a mental age and an I.Q. The mental age was the measure used in this study.

Results:

Treatment of the pre–post camp test data and the first follow–up administration indicated a regression in the gains made in the camp after the child returned to the home community, with the exception of the scores which were reported on the Basic Concept Inventory. Scores on the Arizona Articulation Proficiency Scale rose from a median of 89.5 in pre–camp to a median of 94.5 in post–camp testing. In the first follow–up test administration the median of the score was 90.5, indicating a regression to the entering scores. The median rate of stuttered words per minute in pre–camp testing was 5.5 per minute. Post–camp test scores had a median of 2.0 words per minute. The first administration of the follow–up program had a median rate of 6.3 words per minute. This represents a significant rise in stuttered words per minute to a point greater than pre–camp test scores. Pre–camp test scores for phoneme errors per minute had a median of 7.65. This had a moderate drop to a median of 6.3 phoneme errors per minute in post–camp results. The first administration of the camp follow up program yielded a median error rate of 9.5 errors per minute. This would indicate a sharp return to levels about those indicated in pre–camp testing. See Figures 4 and 5 for graphic representations of this data.

Figure 3

PRE-POST TEST ADMINISTERED TO WORKSHOP PARTICIPANTS

Name _____ Date _____

In planning for behavior change it is necessary to specify goals. Indicate (with a check) which goals listed below would facilitate effective planning.

1._____Talks correctly
2._____Holds listener's attention on topic rather than on production
3._____Does not waste time
4._____Displays flexibility
5._____Stays in seat
6._____Is a good citizen
7._____Does his best
8._____Achieves emotional stability

Number the following modes of utterance in degree of general difficulty for the stutterer (1 - most difficult, etc.):

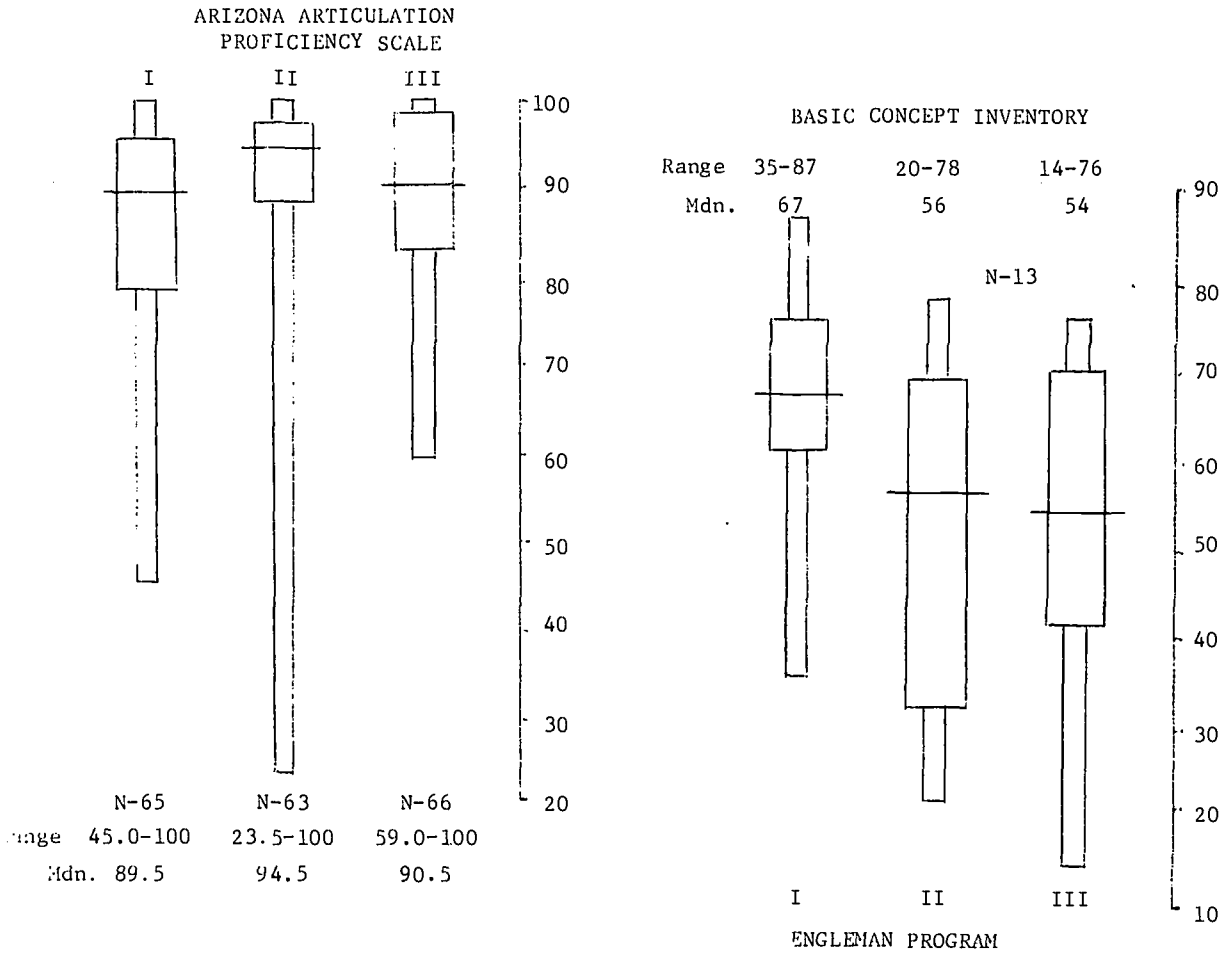
9._____Monologue
10._____Reading
11._____Conversation

True/False

12._____A behavioral orientation emphasizes the analysis of behavior in terms of the immediate environmental conditions.
13._____Of major importance in behavior management is the measurement of behavior. A daily estimate is advisable.
14._____The primary purpose of the speech therapist is to provide a suitable model for the child.
15._____Parents are not teachers and should not be expected to activity participate in the therapy program.
16._____Speech therapy should be restricted to the therapy setting to avoid confusing the child.
17._____Supportive personnel must be trained to take part in the therapy process.
18._____A child's peer relationship should be kept separate from the therapy process.
19._____The conditions under which behavior is observed should change from day to day to get a wide sampling.
20._____In Precision Teaching behavior is rated as being either appropriate or inappropriate.
21._____In evaluating change in behavior, importance should be given to magnitude rather than to proportionality.
22._____A terminal behavior should be broken down into enabling tasks in program preparation.
23._____A criterion test measures the level of mastery of an enabling task.
24._____It can be assumed that food, a primary reinforcer, will act to accelerate behavior.
25._____The planning and use of programs and contingent reinforcement may work well for some children - others will need a more traditional approach.

Figure 4

RESULTS OF ARIZONA ARTICULATION PROFICIENCY SCALE
AND BASIC CONCEPT INVENTORY



The workshops for the most part were well received. Many therapists gave commitment to the use of the tools and procedures presented in the workshop. The enthusiasm generated in the first workshop was obviously not enough, however, for widespread implementation by the local therapists. At the second visitation it was obvious that the concepts were not being utilized by the workshop participants. The project director concluded that although the concepts presented are somewhat simplistic in nature, they require much individual familiarization before they can be effectively employed. One workshop presentation is not a sufficient exposure.

The scores on the pre– post– workshop test ranged form 7 to 22 in the first administration with a median of 16. The range in the post–test scores were from 15 to 23 with a media of 18.5. This reflects a median improvement of 2.5. See Figure 6.

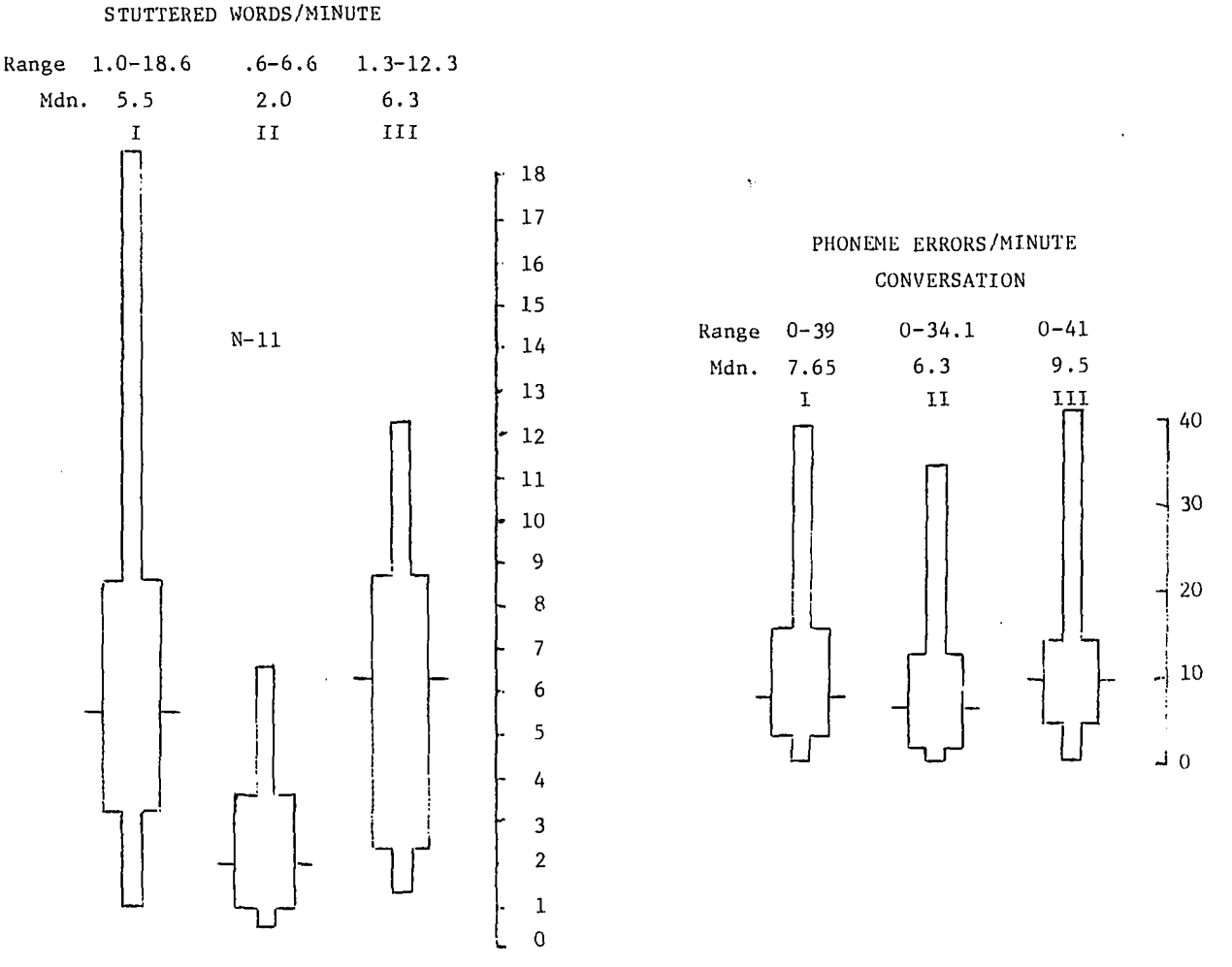
Comments from the parents were generally favorable with regard to their youngster's experience in the camp. The kinds of instructions given by the camptherapist to the parents were most successful where simple maintenance programs were suggested. These consisted of specific instructions to the parent regarding the gains made by the camper with suggestions for casual elicitation of the speech and language skills gained in camp.

There were a number of suggestions from parents as to the management of the camper's physical needs. These generally pointed up the need for more personal supervision of the camper's self–care activities.

Interviews were held to determine the therapists' reponse to the camp report and to help interpret the report for ease and implementation of the camp program. In many cases the camp therapy report was found to be overly descriptive of the child's behavior without adequate

Figure 5

RESULTS OF STUTTERED WORDS PER MINUTE
AND PHONOME ERRORS PER MINUTE



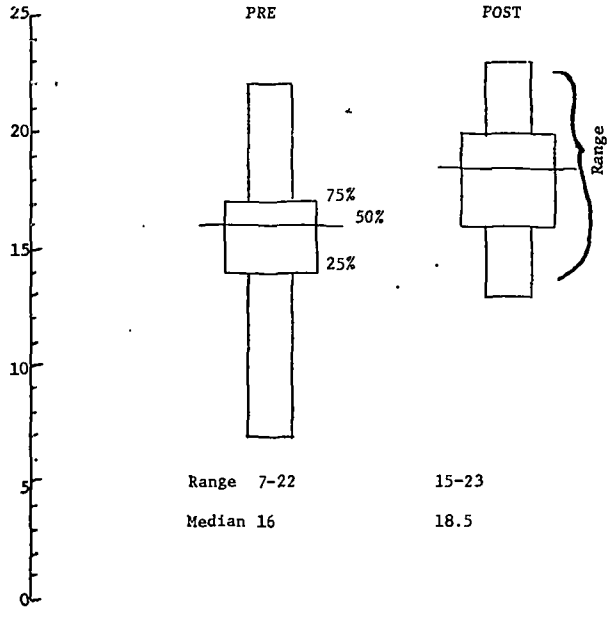
instructions for an extension of the camp program. In other instances, where the camp program was written in detail, there were still areas of misunderstanding which could not have been overcome without the personal follow-up program. With the time given to the workshops and the extended testing program there was on occasion less time available to spend with the therapist than was desired. Speech therapists in the local district gave the following comments in response to the camp reports.

1. More specific therapeutic techniques, for example, what did in fact change the speech behavior?
2. The therapist at camps should also follow the therapy recommendations of the referring therapist.
3. The reports should be sent out earlier in the year.
4. There should be a clear outline of the camp program with more detail.
5. Describe the behavior upon beginning therapy, exactly what was done during therapy, behavior upon termination and recommendation. If a new therapy goal other than was requested in the referral was chosen, give rationale for choice.
6. The graphs and charts are not meaningful to the home therapist.
7. State exactly what the camper does speech-wise rather than a statistical diagnostic work-up and report.
8. A detail of the methods used in verbal instructions to elicit the desired response would be helpful. In other words, how did you get the child to do what you said he did?

As a result of the parents' and therapists' interviews there were a number of variables identified which need to

Figure 6

WORKSHOP PRE-POST TEST SCORES



be considered in any attempt to effect a successful implementation of camp initiated programs into the home community. Some of these variables carry strong implications for changes in the camp follow up program, including the camp report.

As a result of the findings of the 1969–1970 follow–up study, several modifications have been made in the 1970 summer speech camp program. The therapeutic diagnostic role of the camp is apparent in the measured performances of the children attending. Children are referred to the summer program because they have not made adequate progress in the regular school program as interpreted by their home therapist. When progress is made as a result of the camp initiated program, it is important that the procedure used is identified and transmitted back to the referring therapist for implementation. Much care needs to be taken to insure effective communication between the camp and the home therapist. Additional care needs to be taken to carefully identify those events which successfully change the camper's performance and to make it possible for the home therapist to structure the same event. In the 1970 session, provisions have been made for adequate professional staff to allow the production of detailed therapy reports. Additional measures are being taken to facilitate common understanding between camp and home therapists. This might include tape recordings of the child's performance in response to a specific event.

The best means of insuring that there will be no misunderstanding is to have a camp staff member accompany the reports into the field for follow–up consultation. As a result of the 1969–1970 follow–up program a list of duties and responsibilities was drawn up for a year round position and accepted by the camp official advisory committee. Meadowwood Springs Speech Camp recognizes the need for such follow–up services and endorses future efforts to provide such a program.

Third Party Evaluator's Comments:

Most of the objectives stated in this project were achieved. The one objective not achieved was the training of speech therapists around the state in precision teaching methods. While the pre–post test scores indicated that the information presented was retained, there was little indication that these methods were being utilized in local districts. Had this goal been achieved, it would have had impact on speech and language impaired children in Oregon. Failure to accomplish this goal can probably be attributed to two factors: (a) many therapists are unwilling to accept precision teaching as a workable procedure and (b) too little time was allowed for training with no time allowed for practical application of the procedures.

The fact that the gains demonstrated by the children in the camp setting did not carry over to the home community setting should come as no great surprise. This problem is one that confronts any individual who attempts to implement behavioral changes. A maintenance program is often necessary. The key to this problem is recognized by the camp director and project director. They have received much feedback from local speech therapists regarding their reporting procedures. Clarification of these may result in more therapists utilizing similar teaching methods and thus achieve greater carry over of new language behaviors in the home–community setting.

The fact that Meadowwood Springs Speech Camp has as a policy adopted a follow–up program similar in concept to this Title VI program once again supports one of the concepts underlying Title VI – the implementation of innovative programs which will hopefully be maintained by the funded agencies.

Project Title: *Education Manager for Primary EMR Students*

Type of Project: *Educable Mentally Retarded*

Location: *Eugene*

Funding Allotted: *$10,813*

Number of Children Served: *15*

Background and Rationale:

There is a great deal of concern being expressed today for educating handicapped children in regular classroom settings. This interest is expressed by educators who are concerned with the lack of academic progress, poor social adjustment, and improper diagnosis of handicapped children placed in segregated special classes.

In order to effectively educate handicapped children in a regular classroom setting, appropriate support programs and facilities to assist the classroom teacher in her work must be designed. Specially trained personnel, familiar with the unique characteristics of handicapped children, must be available to the teacher.

This project was designed to assess the efficacy of a system developed to serve primary EMR pupils in regular classroom settings. The system utilizes a special educator and individualized educational materials.

Objective:

To determine if primary age mentally retarded students can be educated and maintained in a regular classroom setting using an educational manager as a support person to the classroom teacher.

Methodology:

The project was conducted from September 23, 1969 to June 14, 1970. Fifteen children ranging in CA from 6 years 2 months to 9 years 2 months were involved. All of these children were in regular primary level classrooms in four different elementary schools within the Eugene Public Schools. All of the children were identified by their teachers as having extreme learning problems and their IQ scores ranged from 60–77.

The staff for this project included an educational manager and a number of classroom volunteers. The educational manager coordinated the project and provided the primary supportive assistance to the classroom teacher. He had been a regular classroom teacher and had done graduate work in special education. The volunteers included college graduate practicum students, undergraduate student teachers, junior and senior high school students and sixth grade students. They were involved in supervising and direct teaching in the area of reading and math. All of the volunteers worked under the direction of the educational manager and the classroom teacher. Prior to working in the classroom, the volunteers received inservice training from the educational manager.

The volunteers worked on a regular basis in the classrooms, assisting the project children in the area of reading and arithmetic. The programs used at these times were specifically designed for the individual child by the educational manager.

Parents of six of the children in the project were involved in working with their children 10 minutes per evening in the areas of reading, arithmetic and behavior modification. Programs used by the parents were designed by the educational manager.

Evaluation Plan:

Objective data were provided by administering the following tests on a pre– post–test basis: Illinois Test of Psycholinguistic Abilities, (ITPA), Beery–Buktenica Test, Stanford–Binet Individual IQ Test and the Walker Problem Behavior Checklist. In addition, each individual child's progress in reading and arithmetic was to be recorded on a six cycle log paper and reported at the termination of the project.

Table I

Gains on ITPA, Beery-Buktenica, and Stanford-Binet I.Q.

Student	Auditory Reception	Auditory Association	Auditory Memory	Visual Reception	Visual Association	Visual Memory	Beery Age Gain	Binet I.Q.	I.Q. Change
13	-3.6 4.0	+1.2	+2.8	+ .4	-3.1	-1.1	+ .8	68/77	+ 9
8	+ .4	+1.3	- .5	+1.7	+3.5	+ .2	+1.5	69/82	+13
12	+ .9	+ .1	-	+1.4	+ .1	+.11	+1.2	77/	moved
1	+ .6	+ .2	- .2	- .5	+ .3	+.11	+ .9	60/68	+ 8
3	- .1	+1.3	- .9	+1.3	+2.8	± 0	-2.4	79/88	+ 9
2	-1.2	+ .1	- .2	± 0	-1.7	- .8	+ .7	78/86	+ 8
9	+ .1	+.11	+ .5	+1.1	+1.1	+1.2	+.11	74/84	+10
10	+ .7	+2.1	- .1	- .1	+1.4	± 0	+2.1	75/78	+ 3
11	-.11	+ .4	+1.1	+ .3	+ .3	-1.3	+ .9	69/79	+10
4	-1.2	+ .5	- 3	+1.7	+1.7	+1.2	+1.9	65/65	± 0
5	-3.5	+1.6	+ .5	+2.1	+1.7	+ .6	± 0	65/73	+ 8
6	- .2	+ .2	+1.5	+ .6	+ .1	- .3	- .1	63/64	+ 1
7	+ .6	+1.4	± 0	-1.6	+4.1	+ .1	± 0	60/77	+17

Based on changes from Oct. '69 to May '70

Table II

Educational Data - Reading and Spelling

Task	Say Letter Names				Write Letter Names				Say Consonants				Say Blends				Say Short Vowels				Say Phonically True Words				Say Sight Words				Spelling			
	Pre	Post	Class Norm		Pre	Post	Class Norm		Pre	Post	Class Norm		Pre	Post	Class Norm		Pre	Post	Class Norm		Pre	Post	Class Norm		Pre	Post	Class Norm		Pre	Post	Class Norm	
Student			Pre	Post			Pre	Post			Pre	Post			Pre	Post			Pre	Post			Pre	Post			Pre	Post		
1	0/0	20/2	Group = 4 correct; 8 errors	Group = 28 correct; 0 errors	4/0	12/0	Group = 6 correct; 0 errors	Group = 20 correct; 0 errors	0/0	28/0	Group = 4 correct; 6 errors	Group = 32 correct; 0 errors	0/0	0/0	Group = 0 correct; 0 errors	Group = 10 correct; 0 errors	0/0	13/0	Group = 0 correct; 0 errors	Group = 24 correct; 0 errors	0/0	8/0	Group = 0 correct; 0 errors	Group = 6 correct; 0 errors	0/0	14/2	Group = 0 correct; 0 errors	Group = 6 correct; 0 errors	0/0	8/0	Group = 0 correct; 0 errors	Group = 4 correct; 0 errors
2	5/2	25/0			15/0	30/0			6/6	32/0			0/0	0/0			2/0	12/0			0/0	6/0			0/0	4/0			0/4	0/0		
3	50/0	100/0			28/0	52/0			30/6	80/0			0/0	30/0			6/0	89/0			8/2	38/2			12/3	65/0			6/4	30/2		
4	0/15	0/0			4/4	12/0			6/8	16/0			0/0	0/0			0/0	4/0			0/0	0/0			0/0	0/0			0/0	0/0		
5	35/6	58/2			22/0	35/0			24/4	76/0			0/0	20/0			0/6	52/0			0/0	28/0			4/0	60/0			6/4	14/0		
6	2/0	8/0			2/10	16/0			4/6	65/0			0/0	0/0			0/0	48/0			0/0	6/0			0/0	4/0			0/4	2/0		
7	15/4	40/0			25/4	25/0			10/6	62/0			0/0	24/0			2/0	72/0			0/0	28/0			0/0	60/0			0/2	12/0		
8	0/0	40/4			4/0	12/0			0/0	32/4			0/0	8/0			0/0	15/4			0/0	4/0			0/0	2/0			0/0	0/0		
9	6/12	35/0			2/4	32/0			2/11	49/0			0/0	0/0			4/0	38/0			0/0	6/0			0/0	4/0			0/0	4/0		
10	14/6	28/2			10/0	18/0			2/6	58/0			0/0	12/0			2/6	55/2			0/0	16/0			0/0	6/0			0/0	4/0		
11	14/4	30/0			4/4	28/0			8/6	32/0			0/0	0/0			2/4	35/0			2/10	10/0			0/0	8/0			0/0	4/0		
12	0/0	28/4			6/4	20/0			0/0	20/4			0/0	0/0			0/0	0/0			0/0	0/0			0/0	0/0			0/0	0/0		
13	110/0	120/0			40/4	45/0			2/6	6/0			0/0	4/0			0/0	13/0			20/4	90/0			55/6	15/0			10/4			

KEY
correct/errors

All numbers stand for approx. rate-per-minute.

Table III

Educational Data - Arithmetic

Task	Count Qually		0-9 Say Numbers		10-20 Say Numbers		Write Numbers		Say Number Groups		Addition		Subtraction		Multipli-cation		Division		General Problems	
Student	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1	10/0	48/2	4/0	50/0	0/0	6/2	4/0	18/0	6/0	22/0	0/0	10/0	0/0	4/0	0/0	0/0	0/0	0/0	0/0	0/0
2	58/0	110/0	10/6	34/0	0/0	32/0	20/0	28/0	18/6	32/0	2/4	8/0	0/0	6/0	0/0	0/0	0/0	0/0	0/0	0/0
3	90/0	130/0	70/0	110/0	50/0	80/0	42/0	58/0	30/10	70/0	20/0	30/0	14/0	30/0	2/0	12/0	0/6	0/0	4/4	24/0
4	16/0	80/0	6/10	28/0	0/0	8/0	2/10	12/0	12/0	18/0	0/0	6/0	0/0	2/0	0/0	0/0	0/0	0/0	0/0	0/0
5	52/0	140/0	60/0	94/0	38/0	88/0	30/0	48/0	12/8	42/0	4/2	14/0	0/0	16/0	0/0	0/0	0/0	0/0	2/0	0/0
6	32/0	90/2	2/14	68/0	0/0	60/0	4/2	34/0	8/2	28/0	0/0	12/0	0/0	8/0	0/0	0/0	0/0	0/0	0/0	0/0
7	46/0	120/0	48/2	110/0	38/0	88/0	32/7	44/0	24/0	60/0	2/2	20/0	2/4	20/0	0/0	0/0	0/0	0/0	7/0	0/0
8	12/0	62/0	6/6	60/0	0/0	40/2	2/0	18/0	10/0	14/0	0/0	4/0	0/0	2/0	0/0	0/0	0/0	0/0	0/0	0/0
9	95/0	120/0	26/2	68/0	2/0	48/0	10/8	30/0	20/0	46/0	0/8	12/0	0/0	4/0	0/0	0/0	0/0	0/0	0/0	0/0
10	65/0	130/0	24/6	88/0	8/6	76/0	24/0	40/0	10/2	50/0	8/0	20/0	0/4	14/0	0/0	0/0	0/0	0/0	0/0	4/0
11	64/0	100/0	18/6	60/0	8/0	38/0	20/0	32/0	16/0	42/0	10/2	12/0	0/2	8/0	0/0	0/0	0/0	0/0	0/0	0/0
12	18/0	52/4	2/6	18/4	0/0	2/0	2/4	15/0	4/4	15/0	0/0	6/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
13	150/0	160/0	120/0	140/0	80/0	110/0	52/0	62/0		62/0	20/0	34/0	14/0	24/0	2/4	12/0	0/0	0/0	8/6	14/0
Class Norm	Before: 48 correct; 0 error		After: 98 correct; 0 error		Before: 0 correct; 6 error		After: 60 correct; 0 error		Before: 0 correct; 38 error		After: 0 correct; 32 error		Before: 12 correct; 2 error		After: 34 correct; 0 error		Before: 0 correct; 0 error		After: 0 correct; 0 error	
Class Norm	Before: 0 correct; 0 error		After: 0 correct; 0 error		Before: 0 correct; 0 error		After: 0 correct; 0 error		Before: 0 correct; 0 error		After: 0 correct; 0 error		Before: 0 correct; 0 error		After: 0 correct; 0 error		Before: 0 correct; 0 error		After: 0 correct; 0 error	
Class Norm	Before: 0 correct; 0 error		After: 0 correct; 0 error		Before: 0 correct; 0 error		After: 0 correct; 0 error		Before: 0 correct; 0 error		After: 0 correct; 0 error		Before: 0 correct; 0 error		After: 0 correct; 0 error		Before: 0 correct; 0 error		After: 0 correct; 0 error	

KEY correct/errors

Subjective evaluations of teachers, parents and administrators were to be submitted as appropriate.

Results:

Table I provides an overall view of the differences in pre– and post–test results on the ITPA, Beery–Buktenica and Stanford–Binet IQ Test. Different scores on the ITPA and Beery–Buktenica are expressed in years and months. As can be noted on Table I, the majority of children improved their ITPA subtest scores. Only three children failed to show improvement on the Beery–Buktenica Test and only one child failed to improve his IQ score. Four children made IQ gains of 10 or more points. Table II provides individual data in the areas of reading and spelling and Table III provides this data in the area of arithmetic. Data on these two Tables represent a summation of the individual data maintained during the project on the six cycle log paper. Table II indicates that the majority of children improved in their reading ability in the areas evaluated. Eight of the children showed improvement in spelling. Arithmetic progress was also shown in most all areas by the majority of students as indicated on Table III. Improvement in the area of multiplication was shown by only two students and no student showed improvement in the area of division. This can undoubtedly be explained by the fact that due to the age of the students involved, the majority were working in the area of counting and addition and subtraction facts.

Comments indicated that the use of volunteers in the classroom academic setting allowed the children to gain more help in their deficient areas and thus improve in many areas of academic weakness. The classroom teachers felt that the high school students, after some inservice training, provided a useful function in the learning process. It was felt that a longer, more intensive inservice be provided for high school students working in this type of capacity in the future. Some transportation problems were presented in getting the high school student to and from the elementary school where he was working. This was solved by allowing parents to transport high school students to and from their assigned elementary school.

Seven parents were invited to work with their child in the home setting under the direction of the educational manager. Six parents requested and they received assistance from the educational manager in designing and implementing home programs in behavioral management and academic training. Parents who participated expressed an interest to continue this activity and the teachers reported that the parents work with the children generalized back to the classroom.

Third Party Evaluator's Comments:

In general this project must be considered to have achieved its purpose. The objective data submitted indicate that the EMR children did gain acadmic competencies while working in a regular classroom setting. This would suggest that an educational manager, working in conjunction with volunteers can assist classroom teachers in developing individual programs that would allow EMR children to remain in the regular classroom setting for academic purposes.

Although objective data was provided in the acadmic areas, no data was provided in the area of behavioral assessment. The project design called for the administration of the Walker Problem Behavior Checklist on a pre–post–test basis but this data were not included. It would be interesting to see how the EMR children reacted behaviorally to the regular classroom routine.

More and more, high school students are being given the opportunity to work with handicapped children in educational settings. As this project indicates, these students can provide a valuable service to teachers working with handicapped children. But as this project also points out, special considerations must be met if high school students are to be used. They must be trained in the area in which they will be working and they must be given regular supervision and continual training as they are performing their tasks. Transportation and release time must also be considered. If future project directors are considering the use of high school volunteers, these problems areas must be met.

This project indicates that parents, working in conjunction with educational personnel, can provide needed assistance to the classroom teacher working with handicapped children. The assistance was provided in the area of academic training, an area of extreme need for retarded children. It should be stressed, that if parent involvement is undertaken in academic areas, parents should be provided with continual assistance and appropriate materials. The educational manager was able to provide the help in the present project.

Project Title:	*An Expansion of a Program Utilzing Music as a Basic Media of Instruction for the Trainable Mentally Retarded for Multiple Handicapped*
Type of Project:	*Trainable Mentally Retarded*
Location:	*Redmond*
Funding Allotted:	*$22,962*
Number of Children Served:	*34*

Background and Rationale:

This project was based upon work originally reported by Richard Weber which utilized music as a vehicle to teach children. In this project it was planned that the music program would reinforce and complement the activities of two academic classes, as well as develop learning skills indirectly related to the other classes, such as: increased eye motor coordination, visual perception, attention, and ability to hear and follow directions.

Objectives:

To increase the child's skills and abilities in the following areas:

1. Attention span (auditory, visual, activity)
2. Visual perception
3. Directional perception
4. Gross motor (coordination – poise)

Methodology:

This project was conducted from September 2, 1969 to May 31, 1970.

The staff who conducted the project consisted of the two teachers of the primary, intermediate, and senior academic groups, and a teacher and an aide who conducted the music program. These staff were the normal complement of teachers at the Opportunity Center in Redmond, Oregon. Occasionally student nurses from Central Oregon Community College, members of a neighborhood youth corps, and other volunteers assisted in conducting individual programs for the children. In–service workshops were conducted for the teachers by the Teaching Research Division of the Oregon State System of Higher Education in the techniques of utilizing behavior modification methods and precision teaching methodology.

On a prearranged schedule, the students rotated from their normal class to the music room by groups (primary, intermediate, senior). Each child received approximately 80 minutes in the music room daily.

Since the music program was designed to reinforce instruction – the programs which were being administered in the academic classes – a recapitulation of the major activites in each of the academic classes follows:

Primary – Training in basic words, basic shapes and colors, number recognition and arithmetic concepts, name recognition, and pre–primer vocabulary. On Mondays and Wednesdays the music program reinforced basic words, shapes, and colors. On Tuesdays and Thursdays the music program reinforced pre–primer vocabulary, recognition of personal names, letters within the name, recognition of numbers, and arithmetic concepts. On Friday work was accomplished individually in weak areas.

Intermediate – The intermediate class had a reading program, an accounting program, a writing program of numbers and manuscript letters, color recognition, addition and subtraction. The music program reinforced the intermediate age children primarily in the reading area.

Senior – The senior program consisted of letter writing, reading, writing in cursive and manuscript, arithmetic concepts (including money), carrying and borrowing, and household cleaning. The senior program also contained seven special units:

1. The child and his intermediate surroundings
2. Deschutes County
3. Care of clothing
4. Crook County
5. Health and cleanliness
6. Jefferson County
7. Cooking

The music program primarily reinforced 100 addition facts, 81 multiplication facts, and vocabulary words in the reading program. Later in the project the music program reinforced telling time and changing money.

The methodology used in the music class itself consisted of first determining through conference and daily communication with other teachers the academic program to be reinforced through music for each child. Daily programs were then prepared for the child. Melody cards – cards followed in the playing of the music – stressed a specific learning skill or skills. They were prepared so that if the child responded by pressing the correct keys, a melody of a song familiar to the child would be played which would in effect reinforce the child for correct answers. The skills which the melody card might call upon the child to exhibit were discrimination skills, matching skills, or directional skills.

The child would play the melody cards an assigned number of times. He was always checked in one of three ways before moving on to the next card: (1) Auditory input. Child is asked to find correct symbol on the keyboard and press the correct keys, e.g. "find the ball," "find the house," or "how much is four plus three?" In the

latter case, the child had to find and press the key with the number seven written upon it. (2) Verbalization. The child is asked to read the symbol from the keyboard as the instructor points and asks, "What is this?" (3) Melody card check. If there were no appropriate verbal symbol for shapes or objects being used for perception exercises, the instructor would observe the child playing the melody cards and check the child for mis–matching, mis–discrimination, or directional error.

Evaluation Plan:

The evaluation plan required a recording of the academic progress of all children who were reinforced by the music method. It also required the administration of an attention span test, a directional perception test, a visual perception test, and was to include teacher's statements on the effectiveness of the music program and progress statements from the parents.

Results:

The results will be discussed in a number of sections, essentially corresponding to the various areas which the evaluation plan purported to examine.

Reading consists of a number of skills. The understanding of concepts read was not reinforced by the music program. However, the building of a reading vocabulary was reinforced; the number of words the child could recognize was determined at the beginning of the program and compared to the number of words which the child could recognize at the conclusion of the program. This count of words recognized can also be compared with the total possible words based on primer word lists which he could know at the end of the program. These data are represented in Table I.

TABLE I
Reading Vocabulary Abilities of Children
in the Music Program

Intermediate Level Children

Child	Starting Level Correct Words	Ending Level Correct Words	Ending Level Possible Words
1	72	212	281
2	72	102	130
3	0	116	150
4	165	265	281
5	72	251	281
6	45	271	281
7	0	138	150

Primary Level Children

Child	Starting Level Correct Words	Ending Level Correct Words	Ending Level Possible Words
1	0	7	10
2	0	12	15
3	0	13	20
4	0	13	15
5	0	43	45
6	0	43	45

A perusal of the table will indicate that six out of the seven intermediate level children who were engaged in reading activities showed sizable increases in the number of words that they could recognize at the end of the program compared to the number they could recognize prior to the program. It is interesting to note that in five of these cases, an increase of more than 100 words was made. The comparison of correct words to possible words at the conclusion of the program shows a high percentage of correct words known out of the possible words. In fact, student number one of the intermediate group represents the lowest percentage, yet still achieving 75 percent correct words.

At the primary level area all six cildren had no reading vocabulary at the beginning of the program. At the conclusion of the program two of the children achieved an increase of 43 correct words, and all the others achieved some correct vocabulary.

Table II shows the primary class gains in other areas – basic words, basic shapes, basic colors, cooking words, personal names, number recognition, and number concepts.

Only two of the nine children had any basic words at the beginning of the period. Basic words were twenty words which were shown in a flash card and the child was asked, "What word is this?" At the conclusion of the period, all of the children had learned at least nine words, and one of the children had learned seventeen of the words.

Column two of Table II shows the gains made in basic shapes. Seven shapes were utilized. These colored shapes were shown to the child and he was asked to "Show me a __." One of the children, student number seven knew all seven of the shapes; three others knew six of the shapes. The poorest student in this area knew only three of the shapes. Two of the students did not have this program administered to them.

Basic colors was tested in the area of six colors. With construction paper the child was asked "What color is this?" At the beginning of the period only one child knew any of the colors. At the conclusion of the period four of the children knew all six colors, one knew five out of the six, and a third knew half of them. Only one child failed to learn any of the colors. Once again, two children were not administered this program.

In the fourth column of Table II the gain is shown in cooking words. Fourteen words were chosen. They were placed on flash cards and the child was asked "What word is this?" It is interesting to note that none of the children were able to read any of the words at the beginning of the period. Three of the children showed gains of twelve, six, eight words by the conclusion of the period, and only one child was unable to learn any of the words. This program was not administered to five of the children.

In the fifth column of Table II the child was to recognize the letters of his own name. From flash cards he was asked "What letter is this?" At the beginning of the period only one child knew one letter in his name. At the conclusion of the period, five of the children knew all the

TABLE II
Primary Class Gains

Student	Basic Words SL	Basic Words EL C	Basic Words EL W	Basic Shapes SL	Basic Shapes EL C	Basic Shapes EL W	Basic Colors SL	Basic Colors EL C	Basic Colors EL W	Cooking Words SL	Cooking Words EL C	Cooking Words EL W	Personal Names SL	Personal Names EL C	Personal Names EL W	Number Recognition SL	Number Recognition EL C	Number Concept SL	Number Concept EL C
1	0	9	6	0	4	3	0	6	0	NA			NA			0	3	0	3
2	0	11	4	0	6	1	0	6	0	NA			0	5	0	0	4	0	3
3	0	16	4	NA			NA			0	12	2	1	6	0	5	10	0	5
4	0	11	4	0	3	4	0	3	3	NA			0	5	0	0	5	0	4
5	6	13	2	0	5	2	0	0	6	0	0	12	0	7	0	0	5	0	3
6	0	10	5	0	6	1	0	6	0	NA			0	0	5	0	2	0	2
7	0	15	5	0	7	0	6	6	0	0	6	8	0	1	3	0	7	?	6
8	0	11	9	NA			NA			0	8	4	0	3	1	0	4	0	3
9	4	17	3	0	6	1	0	5	1	NA			0	6	0	0	9	0	7

SL = Starting level
EL = Ending level
C = Correct
W = Wrong
NA = Not administered

letters of their names, one child knew all but one letter, and one child had learned one letter in his name. One of the children learned none of the letters in his name.

In the sixth column of Table II is shown the results of number recognition. The numbers from one to ten were placed on flash cards and the child was asked "What number is this?" At the beginning of the period, only one child could recognize five numbers. At the conclusion of the period, all the children were able to recognize at least two numbers and one child had achieved the skill of recognizing all ten numbers.

The last column of Table II shows number concepts. This was tested by using wooden sticks and asking the child to hand to the teacher so many sticks. At the beginning of the program, none of the children could perform this task. At the end of the program, the majority of the children could count at least to three sticks and hand them to the instructor. One of the children was able to count to seven and hand these to the instructor.

Table III shows the results achieved in the senior class with 100 addition facts. The number correct and the number wrong are shown for a test administered in December and one administered in either April or May. All but one child showed improvement, and in that one case the child had had a perfect score in December and had missed five problems in April and May. The gains noted by these children in arithmetic are not considered significant. However there is in extenuating circumstance which is not apparent immediately from the data. In December the child was allowed as much time as he desired to complete the test. In April and May he was encouraged to complete the test as rapidly as possible.

Data are also available for the reading of clocks by the senior class. Thirty–six pictures of clocks depicting various times were presented to each child. The poorest child in the class was able to identify the time 27 times out of 36. One child in the class was able to identify all 36 correctly.

TABLE III
Senior Addition Facts

Child	December C	December W	April/May C	April/May W
1	85	15	95	5
2	100	0	95	5
3	46	54	77	23
4	91	9	99	1
5	86	14	92	8
6	99	1	100	0

C = Correct
W = Wrong

It was hypothesized that the attention of these children would increase because of their exposure to the piano activity. Three attention span tests were administered: A visual attention test was given. This consisted of attention to film with no sound. Two films were utilized: Film A, *Mother Goose Stories*, and Film B, *Water and Life*. Film B was only shown to the students who

watched all of Film A. Auditory attention was measured by having the child press on a lever to listen to a tape story, *Peter and the Wolf*. When the child took his hand off, the music stopped. Activity attention was measured by attention to a pendulation toy made by North Pacific Products.

In all three cases the child was told that when he became tired of either watching the films, listening to the story, or playing with the pendulation toy, he could stop doing the activity. The results of the attention span tests are shown in Table IV.

TABLE IV
Attention Span Test Results

	Visual			Auditory			Activity		
Student	Pre Total	Post Total	Total Change	Pre Total	Post Total	Total Change	Pre Total	Post Total	Total Change
1	158	540	+382	75	267	+192	*	212	
2	1920	1440	-480	141	1309	+1168	992	619	-373
3	1046	783	-263	*	102		61	543	+482
4	1066	1046	-20	351	465	+114	69	397	+328
5	95	433	+338	102	98	-4	95	97	+2
6	150	443	+293	123	228	+105	104	300	+196
7	*	195		*	109		75	192	+117
8	1018	960	-58	240	103	-137	210	125	-85
9	1000	600	-400	120	266	+146	450	540	+90
10	300	1028	+728	300	176	-124	63	238	+175
11	363	315	-48	95	155	+60	105	71	-34
12	1182	1140	-42	2532	1309	-1223	323	572	+248
13	1260	1235	-25	180	361	+181	15	180	+166
14	812	686	-126	30	147	+117	215	315	+100
15	30	323	+293	37	166	+129	60	229	+169
16	824	1190	+366	199	96	-104	675	336	-339
17	441	563	+122	*			*		
18	55	568	513	30	102	+72	98	257	+158
	t = 1.31			t = .50			t = 1.81		

* No Pre-test

all t-tests are non-significant

As will be noted by the paired t–tests applied to the results of these attention span tests, there were no significant differences noted in the pre– and post–tests.

The validity of the visual attention span tests should be questioned because of the utilization of two films. Film A was considered to be extremely interesting for the children, whereas Film B was less interesting. Moreover, Film A retained their interest both on the pre–test and the post–test, whereas Film B had no interest for children on the post–test who had seen it on the pre–test.

It was also hypothesized that because of the music program the children would be able to follow directions better. Therefore, a test called the Directional Perception Test was designed. Three tests out of seven were chosen from the Parson's Language Sample–echoic, echoic gesture, and comprehension. The results of the directional perception test are shown in Table V.

Paired t–tests applied to these directional perception tests indicate that in the echoic sub–test, the change noted in the group was significant at the .02 level. In comprehension, significance was achieved at the .001 level.

Table VI shows the results of the visual perception tests. A paired t–test indicates a significant difference at the .01 level.

The teachers who taught in the regular academic classes at the Opportunity Center of Central Oregon

TABLE V
Directional Perception Test Results

	Echoic			Echoic Gesture			Comprehension			TOTAL
Student	Pre	Post	Change	Pre	Post	Change	Pre	Post	Change	CHANGE
1	17	18	+1	10	12	+2	16	17	+1	+4
2	19	19	0	12	11	-1	16	19	+3	+2
3	12	13	+1	11	12	+1	12	14	+2	+4
4	17	19	+2	15	12	-3	20	22	+2	+1
5	11	12	+1	8	9	+1	15	14	-1	+1
6	14	14	0	8	9	+1	15	17	+2	+3
7	9	9	0	8	8	0	13	14	+1	+1
8	16	16	0	10	10	0	17	19	+2	+2
9	10	12	+2	9	12	+3	19	19	0	+5
10	*			*			*			
11	5	6	+1	10	8	-2	13	14	+1	0
12	17	19	+2	15	15	0	20	22	+2	+4
13	17	20	+3	11	12	+1	19	19	0	+4
14	22	22	0	12	14	+2	16	20	+4	+6
15	9	13	+4	8	9	+1	11	14	+3	+8
16	13	12	-1	10	11	+1	17	18	+1	+1
17	13	13	0	9	10	+1	15	17	+2	+3
18	14	13	-1	10	12	+2	16	16	0	+1
	t = 2.64**			t = 1.61			t = 4.57***			

* No Pre-test, Absent

** Significant at the .02 level

*** Significant at the .001 level

indicated that they felt that the music program enhanced the learning abilities of the children.

Without exception, the parents of the children involved felt that the children were better behaved, were following instructions better, and were demonstrating abilities far beyond those which they possessed at the beginning of the program.

TABLE VI
Visual Perception Test Results

Student	Total Scaled Scores July 1969	May 1970
1	72	62
2	20	20
3	15	18
4	—	40
5	—	43
6	—	43
7	19	24
8	23	22
9	—	23
10	26	27
11	24	23
12	27	29
13	—	29
14	—	27
15	—	19
16	24	23
17	33	31
18	25	25
19	20	22
20	36	30
21	22	21

t = 2.96, significant at the .01 level

Third Party Evaluator's Comments:

This program was found deficient in a number of areas. First, the proposal was much too grandiose for a Title VI project. As was discovered by the investigators on the project, there were areas which they were unable to do, such as providing materials for homework and involving parents.

There is some confusion relative to the number of children who participated in the program. Thirty–six children are reported to be involved in the music program. Yet, in no case were results reported for more than 21 children. Upon questioning why data were not submitted for the other children, the director of Opportunity Center said that it was his decisions not to include the other 15 children since they came into the school during the year and some left prior to the completion of the project. "The testing of these new students would have been too bulky and time consuming, detracting from the program." This seems to be a reasonable decision.

Visits by the evaluation team during the project indicated that the instructors of the music program were having difficulty organizing the sequence of materials for which they must prepare melody cards. It was felt by the evaluators that much valuable time was lost at the beginning of the program in obtaining this necessary organization. However, as is evidenced by the statements of the teachers and the results achieved in the academic improvement of those children reported on, there apparently eventually developed a fine system of intercommunication between teachers and the music program.

The results reported in Table I, the Reading Vocabulary Abilities of Children in the Music Program, indicates once again that trainable retarded children apparently have a much greater ability to engage in reading abilities than previously thought possible. The gains made by these children, especially the intermediate level children on whom the data were recorded, seemed to indicate increases comparable to that achieved by slower learning students in regular classes. Further exploration in this area is obviously necessary. It is interesting to note that gains in these areas were not anticipated in the initial proposal. However, consultation on–site with the evaluation team indicated the need for gathering this type of data. One must look at the gains made in this area and consider them the most significant of the project.

This project was ambitious in that it tried to demonstrate that the music program would do many things for many children. The program was to increase the children's attention span in all areas, visual, auditory, and activity; it was to increase their capability to follow directions; and it was to increase their visual perception. The fact that nonsignificance was achieved in attention span, and in the echoic gesture portion of the Parson's Language Sample, does not negate the value of this program. The gains indicated by the children on whom data are available show sizable increases in academic performance as well as significant gains in portions of the Parson's Language Sample and the Frostig Visual Perception Test.

Utilization of music to enhance the academic work being performed in a classroom may well have much merit for trainable retarded children, as evidenced by this program. Further funding to determine the full capabilities of this type of program is desirable.

Project Title: *Prospect Program for Improving Education of Culturally and Emotionally Handicapped Children at Lower Grade Level*

Type of Project: *Culturally Deprived*

Location: *Prospect*

Funding Allotted: *$2,240*

Number of Children Served: *11*

Background and Rationale:

This project was developed to serve the educational needs of handicapped children at the lower elementary level in the Prospect School District. This district serves a small community, 52 miles from Medford, which is the nearest facility where it is possible to obtain such special services as speech therapy, child and family guidance, health, and psychiatric services.

This project allowed the Prospect School District to provide a service of remedial education to children that would otherwise not receive this service. A project teacher was hired and she held small group and individualized teaching sessions with the children. The children, who were enrolled in a regular class, left that class and came to the small room where the special teacher worked with them on specific academic items. When they were not involved in this special project, they were back in their regular classroom.

Objectives:

The objectives as stated in the original proposal are very loose and do not lend themselves to making specific behavioral statements concerning the expected outcomes of this project. However, to the teacher's credit she very adequately stated behavioral objectives for each teaching strategy on every child in the program after the program was underway. The specific objectives for each child can be found in the results section.

Methodology:

The special classroom teacher operated in a small one room building that was available in an ideal location close to the other classrooms. It was quiet with no interruptions and was designed with a minimum of extra cost to the district. Equipment was purchased and the program started approximately two weeks after the regular school was in session.

Each child was pre–tested on the Metropolitan Reading Readiness Test, Stanford Achievement Test, and the Peabody Picture Vocabulary Test. Each of the children came to this special classroom one at a time for an individual session of approximately 15–20 minutes. The teacher kept daily graphs and charts of the progress of each child. A token economy reinforcement system was established with each of the children through the use of Peabody chips, which could be traded at a later time for a toy of his choice or a certain privilege in the room. The teacher indicated that the children soon learned how the charts were kept and were inspired to improve and to "get to the top."

Evaluation Plan:

The basic evaluation format of this program has two aspects. First, a series of standardized tests were given both pre– and post–. These tests are the Peabody Picture Vocabulary Test, the Stanford Achievement Test, and the Metropolitan Reading Readiness Test. Other data that were kept consists of daily records of performance on each child.

Results:

As can be seen in Figure I, the Peabody Picture Vocabulary Test was given before and after the project. An examination of those results indicates no preceivable trends or patterns.

Figure II represents the results received on the pre– and post– Stanford Achievement Test. The results indicate positive results for all children in at least some of the areas tested. No child scored significantly worse on the post–test than they did on the pre–test; however, many scored much better on the post–test than on the pre–test.

Figure III represents the results of the Metropolitan Reading Readiness Test that was given both pre– and post–. This test was only given to first grade youngsters of which there were three. The results of this test indicate that these three first graders made a significant improvement in academic skills in all the areas covered by this test. Only two sub–tests out of all administered did not indicate improvement. The most interesting result is the finding concerned with percentile rank on the pre– and post–test. All children went up approximately thirty percentile points from the beginning to the end of the year.

Figure I

RESULTS OF PEABODY PICTURE VOCABULARY TESTS

Student	Birthdate			Date Given			Age	Grade	Form	Raw Score	Derived Scores		
	Year	Mo	Day	Yr	Mo	Day					MA	IQ	%ile
1	62	7	27	69	11	18	7-5	1	A	52	5-5	83	12
				70	5	14	7-10		B	50	5-3	73	2
2	61	12	10	69	9	12	7-9	1	A	50	5-1	72	1
				70	5	14	8-5		B	52	5-6	76	4
3	63	2	3	69	9	12	6-7	1	A	57	6-3	93	35
				70	5	14	7-3		B	60	6-10	99	52
4	62	1	31	69	9	15	7-7	2	A	54	5-9	79	8
				70	5	18	8-4		B	57	6-4	85	16
5	61	7	15	69	9	15	8-2	3	A	81	10-10	126	96
				70	5	14	8-10		B	88	12-4		
6	60	6	21	69	9	15	9-3	3	A	67	8-3	93	34
				70	5	14	9-11		B	65	7-10	82	13
7	60	10	25	70	2	9	9-3	3	A	89	12-9	129	97
				70	5	14	9-7		B	92	13-0	126	95
8	59	7	11	69	9	15	10-2	3	A	113	18+	142+	96+
				70	5	18	10-10		B	77	12-2	91	26
9	60	2	24	69	9	15	9-7	4	A	57	6-3	71	1
				70	5	14	10-3		B	67	8-2	85	20
10	58	12	23	69	9	15	10-9	4	A	86	12-3	106	67
				70	5	14	11-5		B	79	10-5	94	35
11	59	9	5	69	9	16	10-	4	A	78	10-5	104	57
				70	5	14	10-8		B	139	18+	139+	99+
12	58	10	15	69	9	15	10-11	5	A	66	8-1	76	6
				70	5	14	11-7		B	71	8-11	79	5

Figure II

RESULTS OF STANFORD ACHIEVEMENT TESTS

Student	4		5		6		7		8		9		10		11		12	
Form	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
Year Given	69	70	69	70	69	70	69	70	69	70	69	70	69	70	69	70	69	70
Month	10	5	10	5	10	5	10	5	10	5	10	5	10	5	10	5	10	5
Grade	2	2	3	3	3	3	3	3	3	3	4	4	4	4	4	4	5	5
Test grade placement	1.6		2.8		2.0		2.6		2.7		3.2		3.4		2.8		2.9	
Comprehension or Paragraph	1.5	1.5	2.1	2.3	1.9	1.9	3.1	2.9	2.5	2.9	3.0	2.4	2.9	4.0	2.7	2.3	2.8	3.9
Vocabulary or Word Meaning	1.3	1.9	3.0	3.3	1.7	2.1	2.9	4.0	1.7	2.9	4.9	3.6	4.7	5.6	2.6	3.1	2.7	3.3
Ave. Read																		
Language Usage			2.7		2.2		2.5		2.5		2.5	2.8	2.5	4.3	2.1	2.7	2.1	3.3
											3.6	concepts	3.3	concepts	2.2			
Arithmetic Reas Concepts		1.2	2.6	4.5		2.5	2.7	2.9	none	3.2	2.9		3.0	Reas	3.4		4.1	
Arith Comp Computation		2.7	2.0	3.2	2.6	3.0	1.9	3.1	none	4.0	2.7	3.9	3.5		3.3		3.7	
Ave. Arithmetic	1.9				1.3				2.5									
Science					2.3						3.6						2.1	
S.S.		1.4		3.3		2.9		2.7		2.6								
Ave. S.S.			5.5		1.8		2.2		4.6		3.5		4.1		3.3		3.2	
Science											3.1		2.8		3.1		3.0	
Spelling	1.1	2.0	2.0	3.1	1.5	2.0	2.2	3.4	2.3	2.8	3.3	3.4	3.6	3.8	3.0	3.7	3.1	3.7
Word Study Skills	2.1	2.3	2.2	2.2	2.3	2.0	3.5	5.0	2.8	2.9	2.6	2.9	3.1	4.0	2.2	1.9	2.2	

Figure III

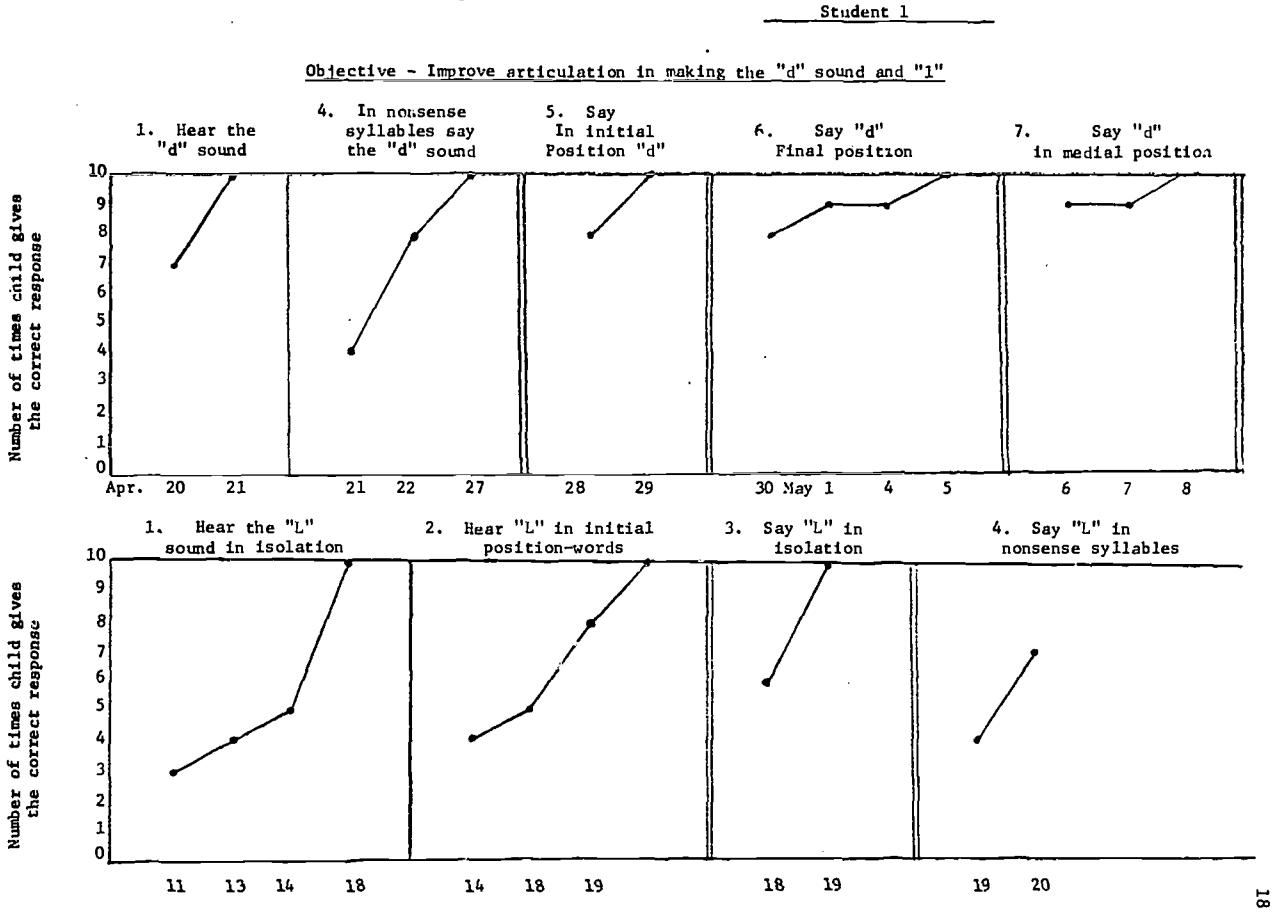
RESULTS OF METROPOLITAN READINESS TESTS

Student	3		1		2	
Date Given	Fall '68	70-5-25	Fall '69	70-5-25	Fall '69	70-5-25
Birthdate	63-2-3		62-7-27		61-12-10	
Age		7-4		7-10		8-6
Grade	1	1	1	1	1	1
1. Word Meaning	9	9	7	8	7	4
2. Listening	12	15	6	9	4	9
3. Matching	11	12	3	9	3	8
4. Alphabet	14	16	14	15	0	13
5. Numbers	14	18	9	11	3	8
6. Copying	5	10	2	5	3	5
Total Test Score	65	80	41	57	20	47
Percentile Rank	71	95	25	55	4	35
Letter Rating	B	A	D	B	E	D
Draw A Man	C	C	E	D	E	D

Individual Records

Student 1 – The major portion of the teaching activities with this student centered around speech correction activities. For this child the teacher generated 57 specific behavioral objectives. Each of these behavioral objectives were attached systematically with data collected and charts provided for every item. An example of the type of data collected and the charting kept is reported in Figure IV, which deals with the specific objectives to improve articulation in making the "d" sound and the "l" sound.

Fig IV

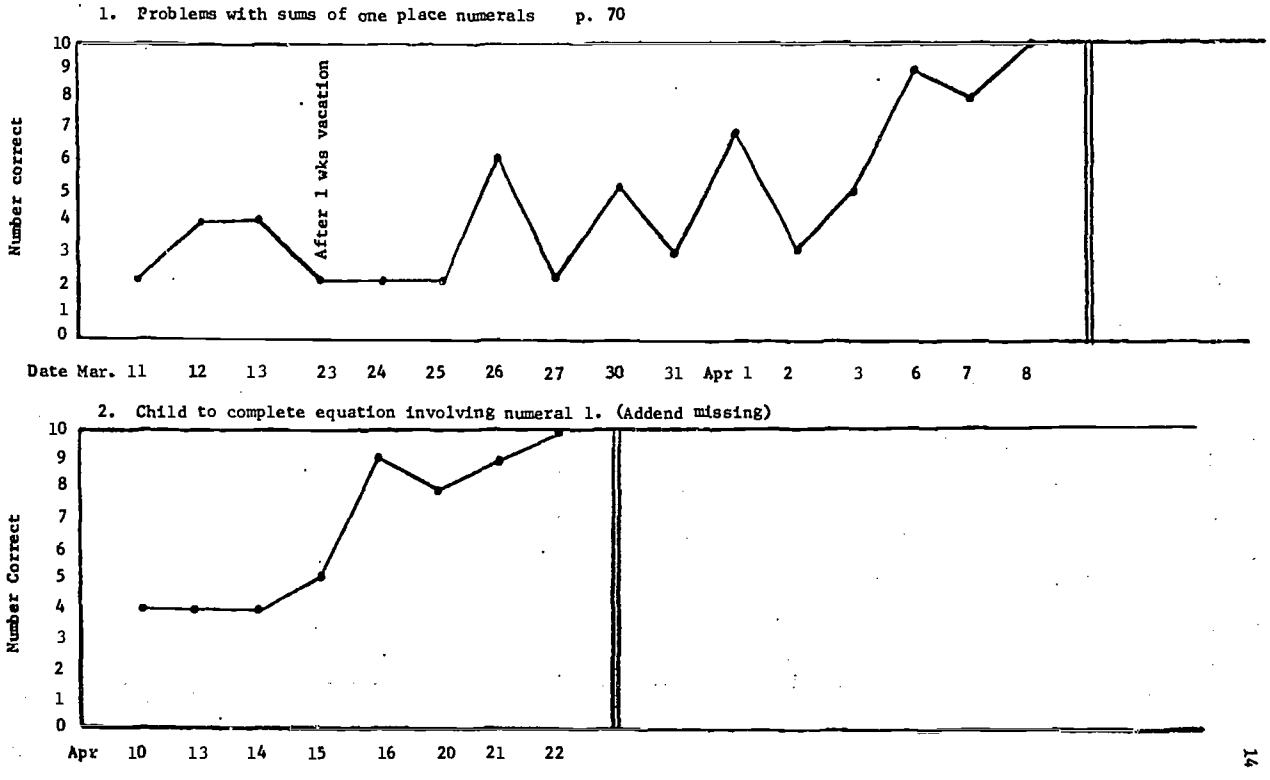


Student 2 – For this student the teacher generated 40 specific behavioral objectives. Again the major area of emphasis for him was in the area of speech training and number concepts. Again each behavioral objective was chartered appropriately. Figure V shows the results for a typical number program.

Fig V

Student 2

Objective - Child to recognize and name the one place numeral that is the sum of a numeral and one more.

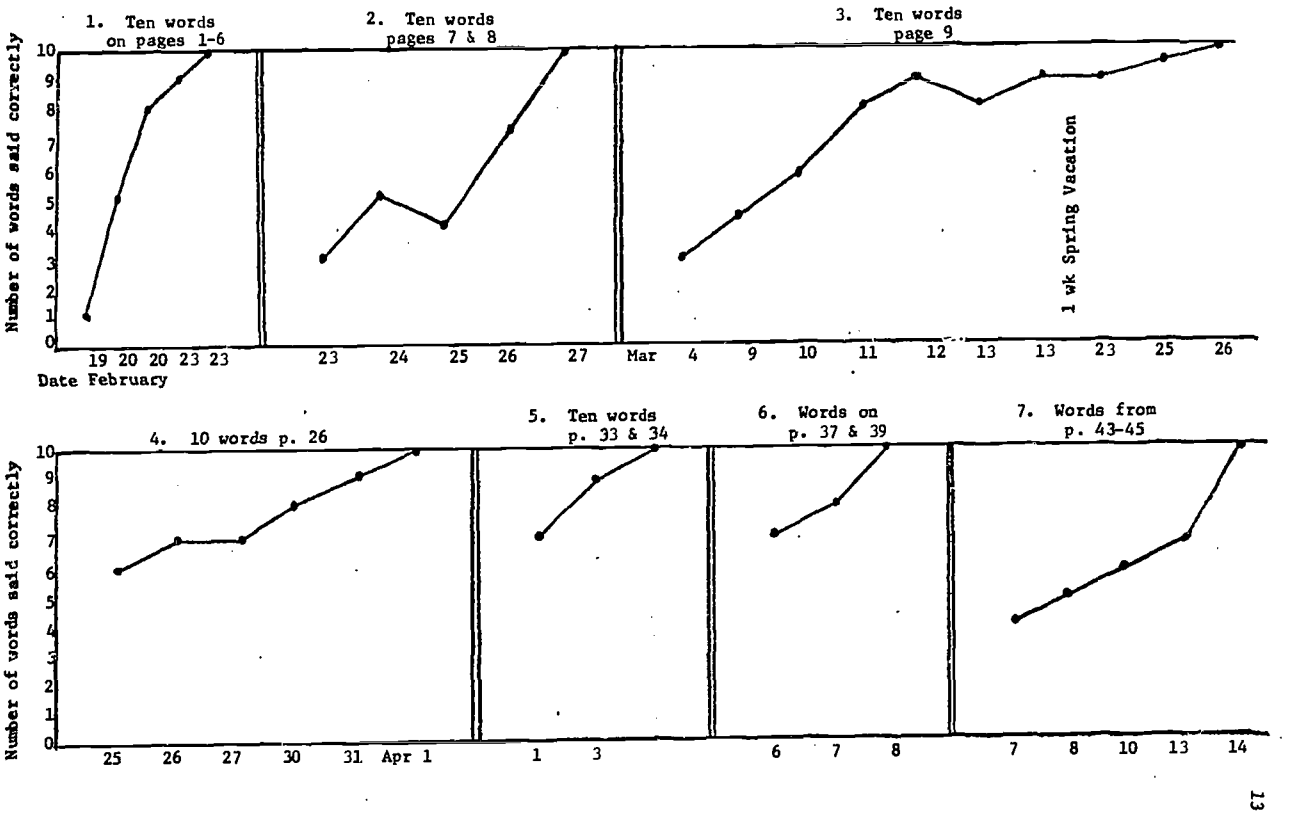


Student 3 – For student 3, 36 individual behavioral objectives were developed. The main areas of concern were speech and reading problems. An example of the type of information gathered concerning reading ability can be found in Figure VI. This shows the number of words that the child was able to say correctly from a basic reading book over a three month period.

Fig VI

Student 3

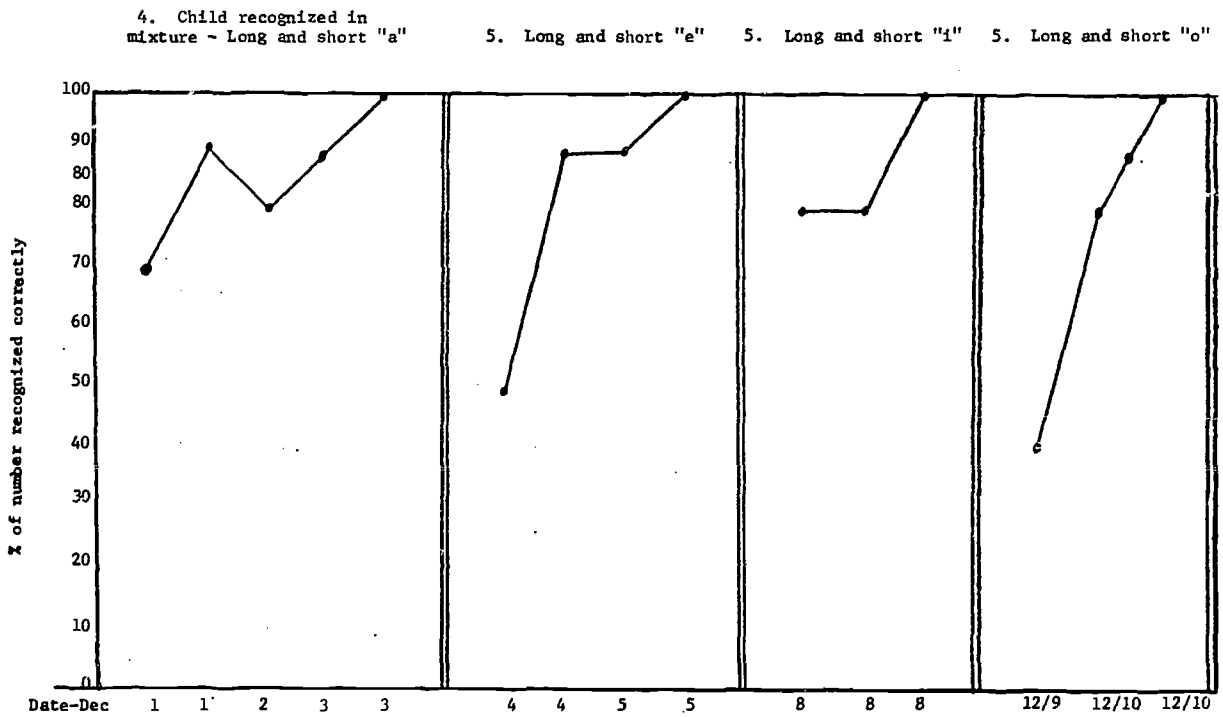
Objective - Improve reading ability - Study words in "B" book (Lippincott's)
Recognize and say words.



Student 4 – For this student five behavioral objectives were established. The objectives centered around the child's being able to spell words orally and graphically and to write and read and recognize all short vowel sounds and words at her grade level. Again each behavioral objective was systematically evaluated and has been represented graphically. Figure VII is an example of results achieved concerning recognition of long and short vowels when the student was presented pictures whose names contained long and short vowels.

Fig VII Student 4

Objective – Child to recognize long and short vowels when presented pictures whose names contain long or short vowels.

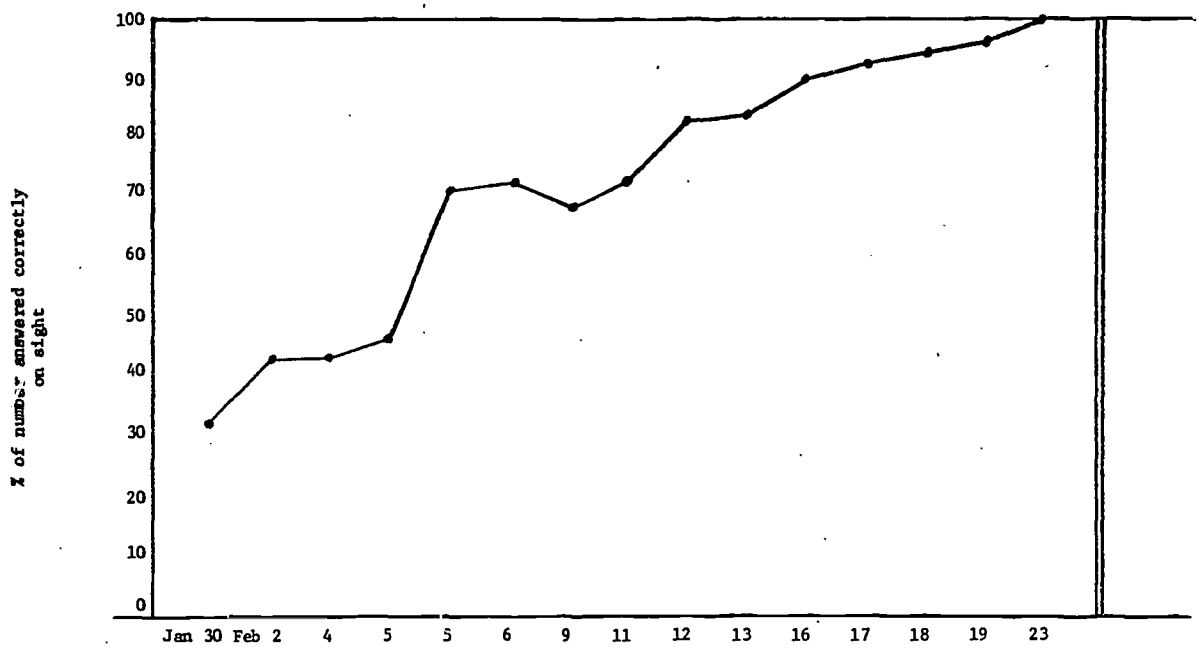


Student 7 – For this student seven behavioral objectives were stated. The objectives center around two major areas of math and spelling. Figure VIII represents the results for the month of February on the child's ability to do 72 addition combinations correctly without number line and orally.

Fig VIII Student 7

Objective - Improve child's ability to do 72 addition combinations correctly without number line - orally.

1. To addition combinations.

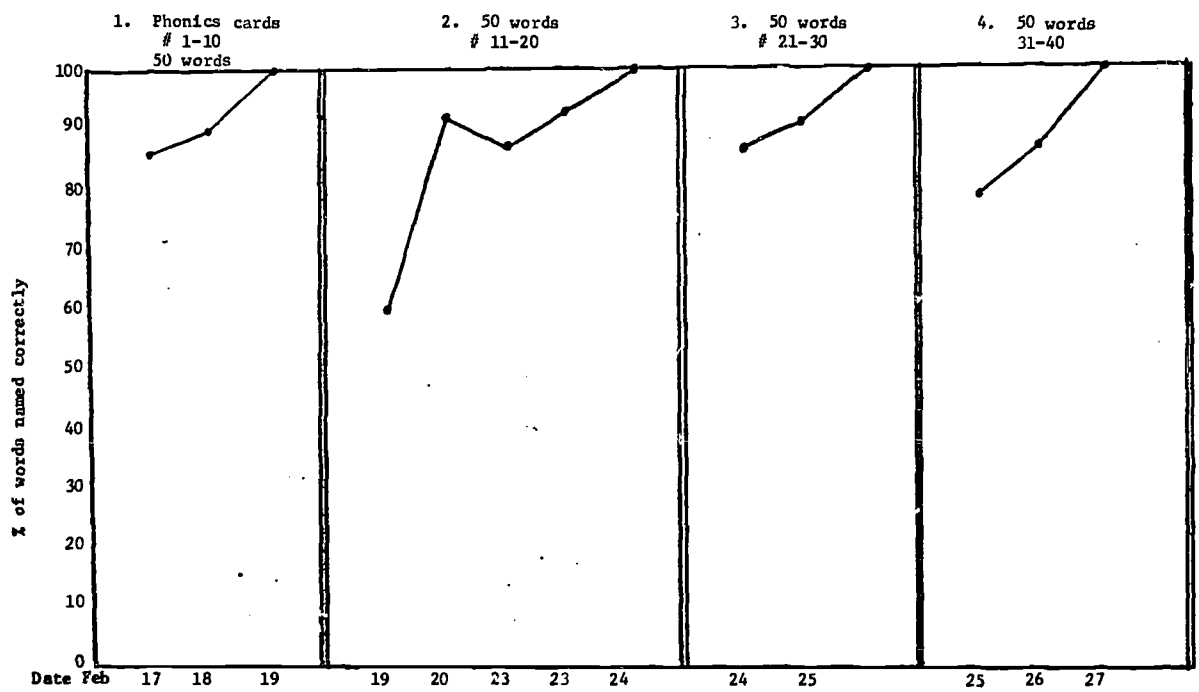


Student 5 – The teacher worked with this student on 16 individually stated behavioral objectives. The objectives were in the area of math, vocabulary and reading. Figure IX is representative of the child's progress in reading ability as indicated on word cards for the month of February The results indicate that the teacher was able to introduce approximately 50 new words a week with a 100% success by the end of that week.

Fig IX

Student 5

Objective: Improve child's reading ability - study word cards (phonics set #64011)

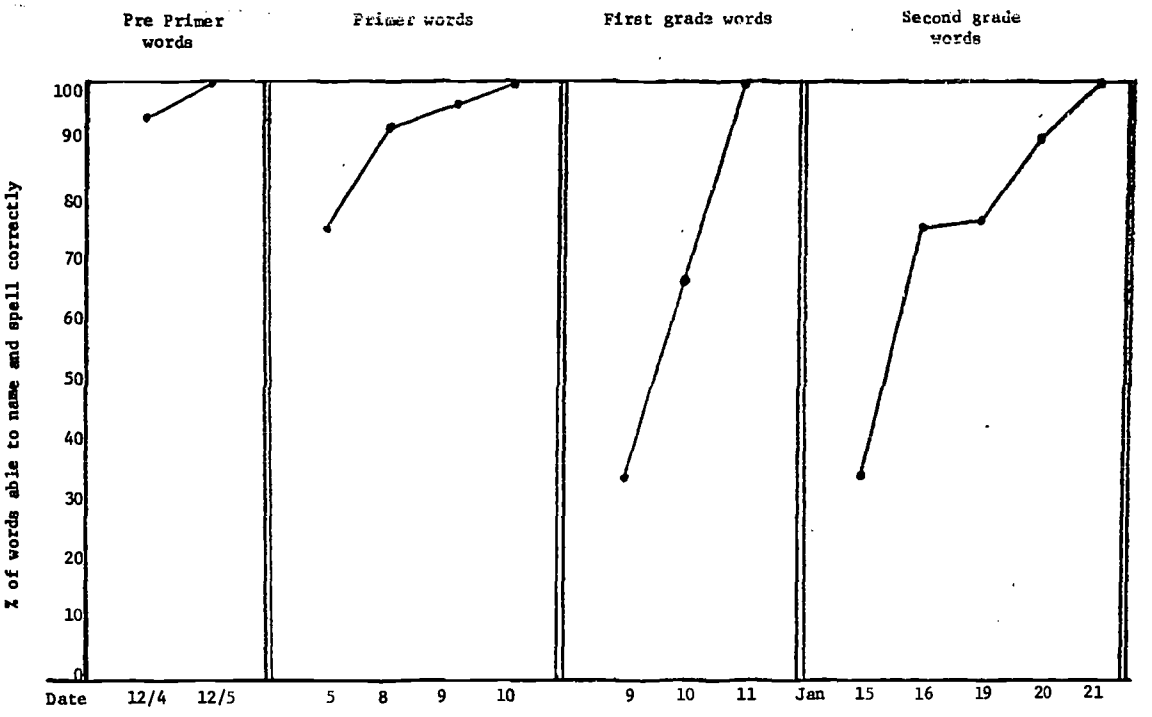


Student 8 – The teacher generated nine behavioral objectives for this student. All the objectives were in the area of spelling. For instance, the child was to be able to say and spell 20 of the basic Dolch word list. An example of the results achieved can be seen in Figure X for the months of December and January.

Fig X

Student 8

Objective - to name and be able to spell all words in Dolch basic list.

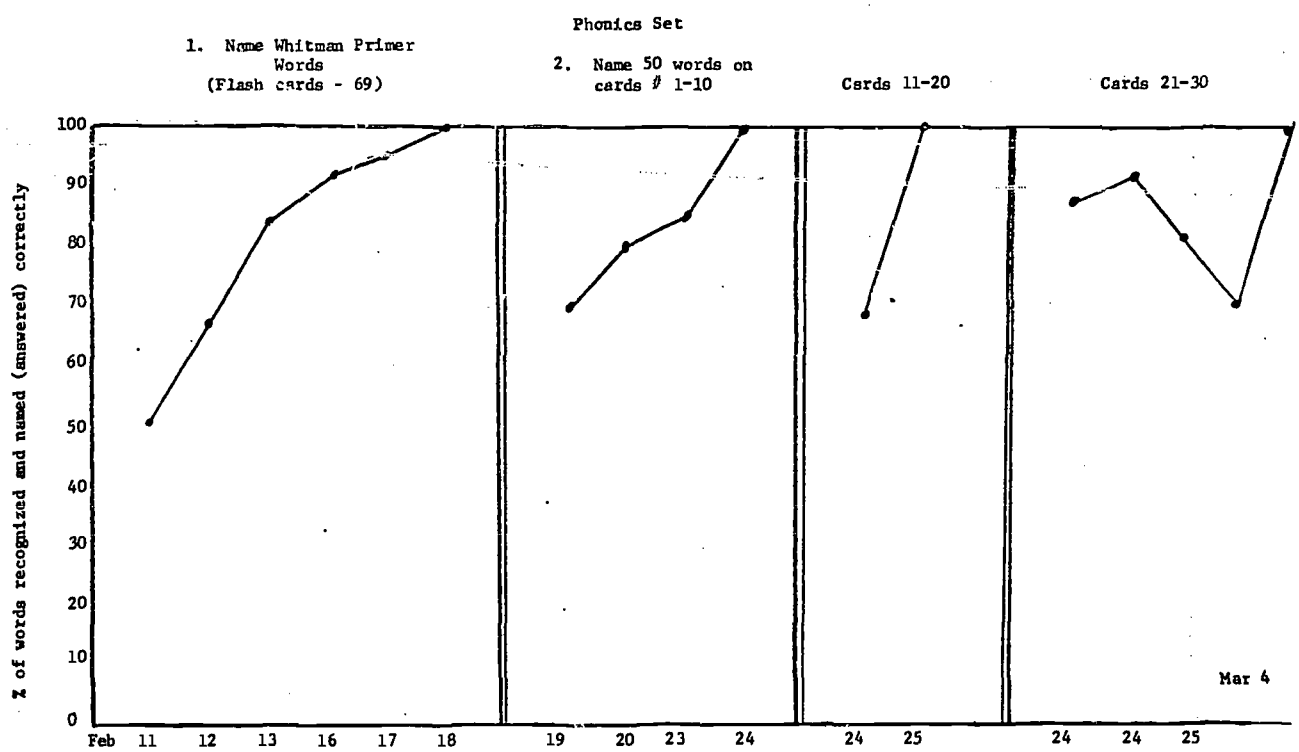


Student 6 – For this student 24 programs were developed. All programs were developed around his use of numbers and reading ability. The results of his reading ability with use of flash cards with phonics and a word list are represented in Figure XI.

Fig XI

Student 6

Objective - Improve reading - use flashcards with phonics and word list (Dolch)

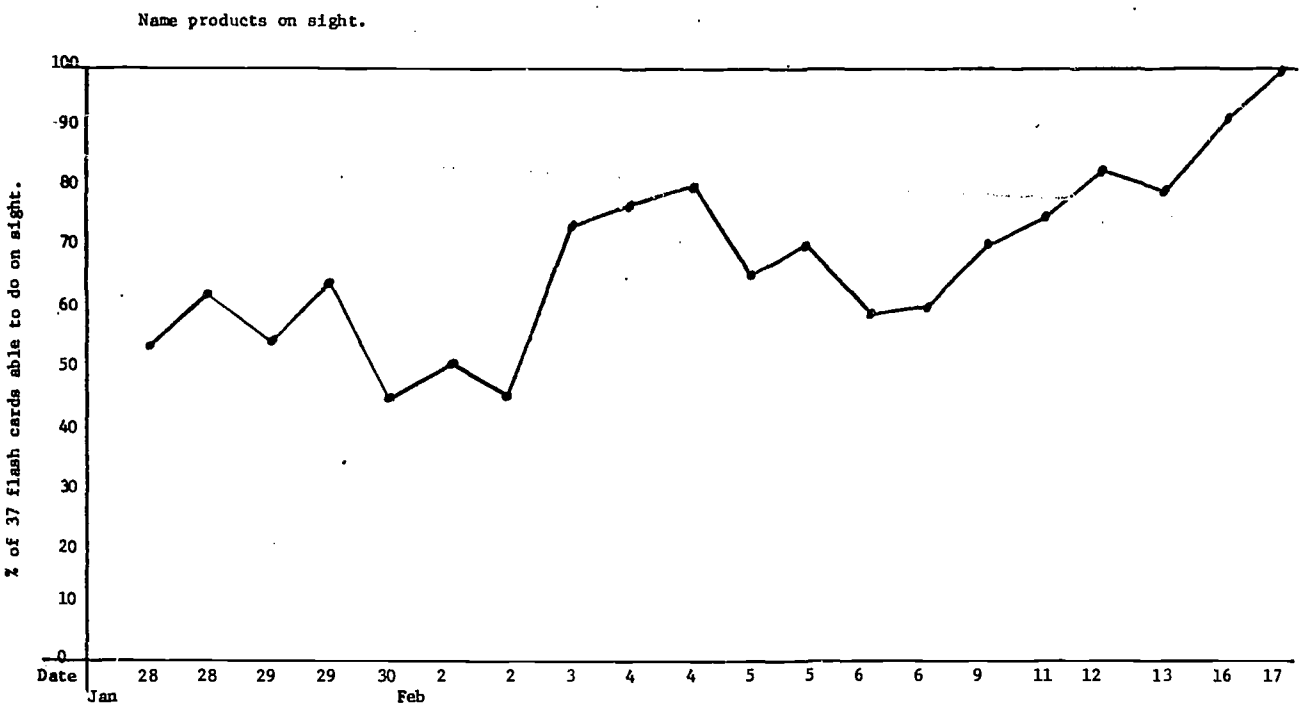


Student 9 – This student worked on 21 separate programs in the areas of vocabulary, math and reading. An example of the results achieved on the math section in regards to her ability to give answers orally on sight to multiplication combinations can be found in Figure XII.

Fig XII

Student 9

Objective - Child to give answers orally on sight to multiplication combinations - Use 37 more difficult ones.

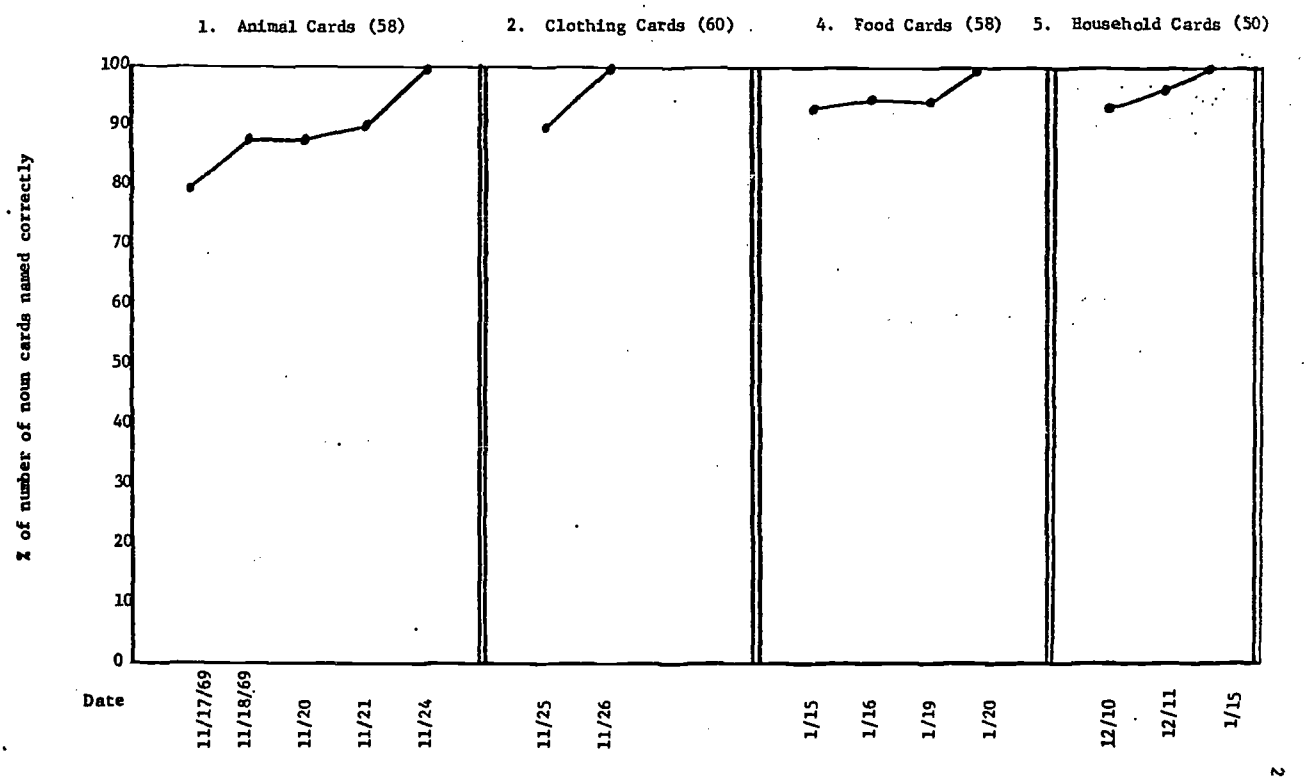


Student 10 – This student worked on 15 programs in the areas of vocabulary and reading. By systematically using various types of flash cards the increase in the number of noun cards named correctly can be seen in Figure XIII for the months November through January.

Fig XIII

Student 10

Objective - Increase child's vocabulary - (cards in P.K. # 1)

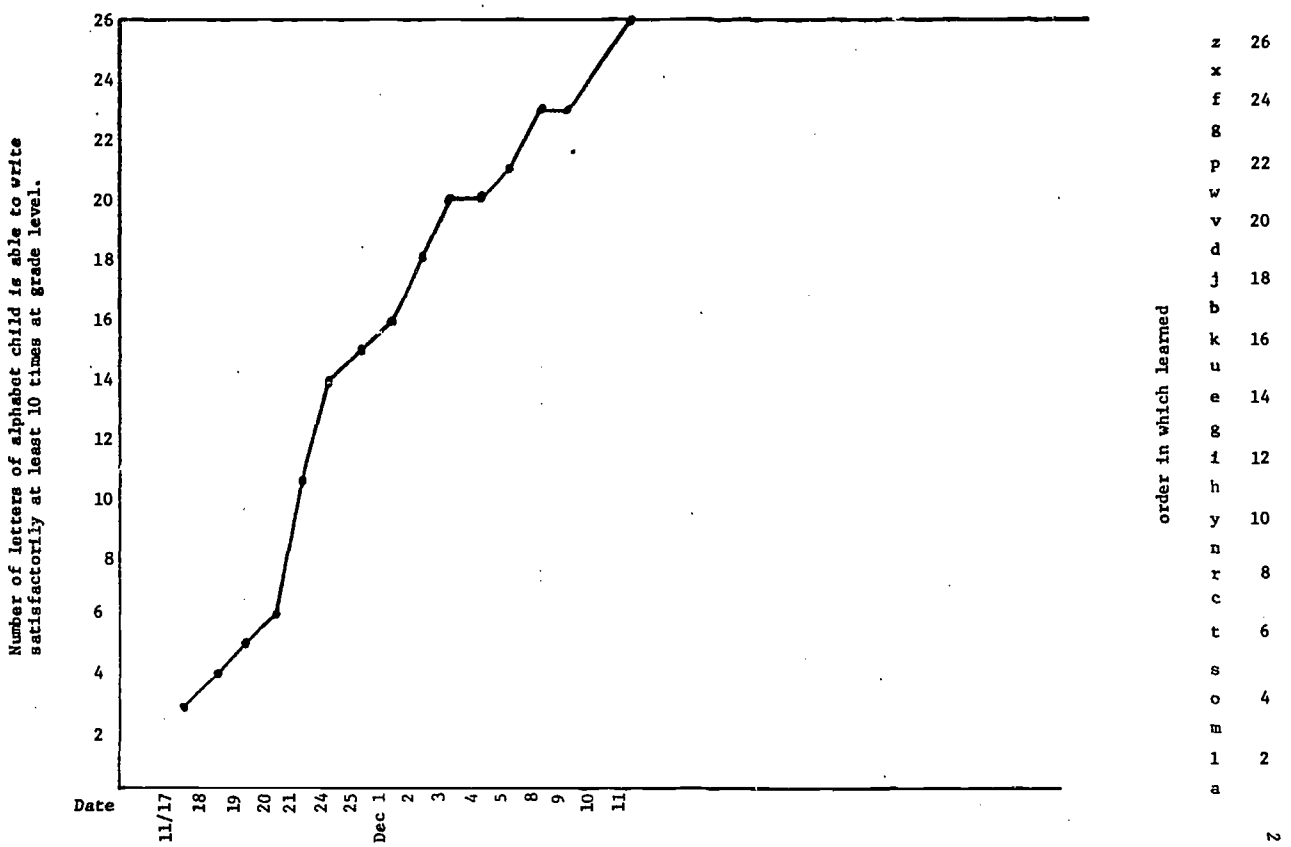


Student 11 – This student worked on 6 behavioral programs that were all centered around his ability to write legibly the 26 letters of the alphabet in isolation in spelling words of his grade level. Figure XIV represents his performance.

Fig XIV

Student 11

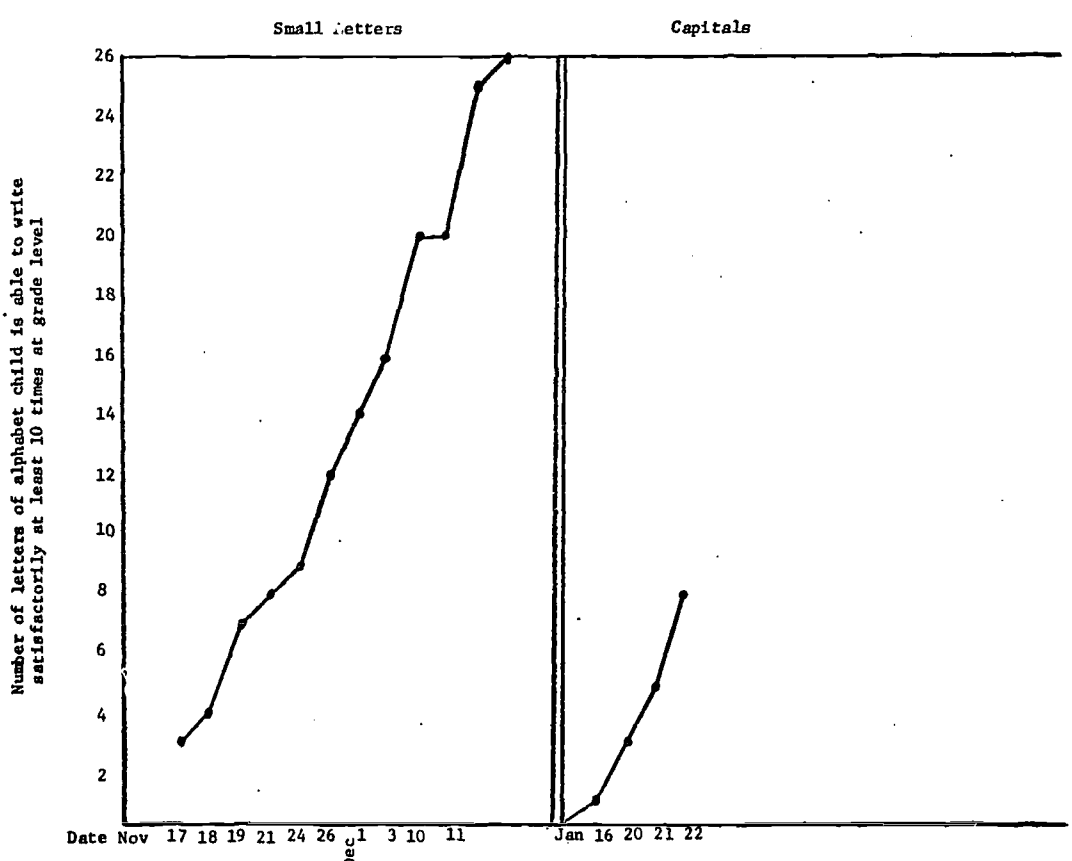
Objective - Improve ability to write legibly letters of alphabet



Student 12 – There were 5 specific objectives developed for this student. The overall objectives was to improve his ability to write legibly all 26 letters of the alphabet both small and capital letters. He must be able to write letters in isolation and in spelling words. An example of his progress in the area of writing all letters both small and capital and the time involved can be seen in Figure XV.

Fig XV Student 12

Objective - Improve ability to write legibly all letters of the alphabet.



Third Party Evaluator's Comments:

This project can receive nothing but praise. The individual results with all children are astonishing and the manner in which the project was conducted is above all criticism. The individual results are much more impressive than the pre– and post– standardized test data; however, all children showed improvement even on the standardized test.

This report could not possibly include all of the data that were submitted by the project director. Thus, only representative examples have been included. For each behavioral objective that was stated, a well–documented evaluation was performed. Teaching strategies were outlined for each objective and daily information was recored concerning the effectivenss of that individual program.

This project is an excellent example of what can be accomplished when teaching by behavioral objectives. With the amount of success that was achieved in this project with each child, it is surely possible that many of these children can now be maintained in the regular class without special treatment.

The only difficulties which arose centered around the project getting a slightly late start and the teacher not being totally clear about what was expected of her. However, after the first evaluation meeting, she very quickly attended to specifying her treatment strategies and evaluating the effects of these strategies.

The third party evaluation team suggests that any persons interested in using this strategy for teaching should contact the project director in Prospect, Oregon for more information on her techniques and the specific results on each child in the program.

Project Title: *Parent Program – Classes for TMR – Corvallis*

Type of Project: *Trainable Mentally Retarded/Multiple Handicapped*

Location: *Corvallis*

Funding Allotted: *$6,750*

Number of Children Served: *28*

Background and Rationale:

Because trainable mentally retarded (TMR) children learn at a slower rate than other children, it was anticipated that more time was needed to train these children than the time allotted to the classes in the Corvallis Public Schools. Consequently, the purpose of this project was to provide a program of parent participation in the education of their TMR child so as to extend the time of intensive individual training for their children into the home. It was felt that providing a coordinated and integrated learning program for the children between the school and home will allow the children to progress at an accelerated rate and therefore allow them to receive an educational program which will give them more education and will compensate at least in part for their retarded condition.

Objectives:

1. To provide parents with a basic knowledge of the principles of behavior modification.
2. To coordinate learning experiences between the school and the home so as to accelerate the learning process for the child.
3. To have the parents utilize behavior modification techniques in the home employing cues and reinforcement similar to those being utilized in school, and maintaining records of performance of the child.
4. To extend the utilization of these behavior modification techniques in the home to language, motor, and self–help skills so as to effect significant changes in specific behaviors in these areas.

Methodology:

This project was conducted from September 2, 1969 to June 30, 1970. Twenty–six children were involved ranging in age from 3 to 18. All of the children were diagnosed as trainable mentally retarded.

The staff consisted of four classroom teachers, four teacher aides, one teacher–coordinator (½ time), one speech therapist (½ time) and two consultants from the Exceptional Child Research Program of Teaching Research. The classes were categorized into the following groups: pre–school, primary, intermediate and advanced. The children were placed according to their abilities. Pre–school children were scheduled in school from 9:00 a.m. to 12:00 p.m., Monday through Friday. All other TMR classes were scheduled 9:00 a.m. to 2:15 p.m., Monday through Friday. All meetings were held at the Mt. View School in the Corvallis School District No. 509J.

The initial stage of this project provided a two hour session with parents in which a basic introduction to behavior modification was introduced. Subsequent to this introduction, a parent–teacher conference was scheduled and one behavior was chosen mutually by the parent and teacher which the parent was to teach at home. Parents were instructed that a record of the child's responses was to be maintained on this program and this information was to be returned to the teacher daily using the child as a carrier. Each parent was told she was welcome to consult with the teacher via note or telephone if there were any confusion regarding the home program. Based on the data submitted by the parents, the teacher made changes in the program as she deemed necessary.

Once each month, each parent was scheduled to come into the school for a conference with the teacher and staff of Teaching Research. During this conference, the parent was asked to work with her child on the home program. This intervention with the child was video taped. The child was then returned to his classroom. At this point the parent's performance concerning presentation of cues, delivery of reinforcement and recording procedures was discussed. Frequently, the video tape was played back to the parent immediately to point out particular points so that the parent could be shown those things that were of relevance to the improvement of his teaching techniques in the future.

In addition to the day meetings with the parents, staff from Teaching Research conducted evening meetings with the parents weekly during the school year. The parents of the pre–school and primary children met together and the intermediate and advanced groups met on alternate weeks. The content of these evening meetings included critiques of the video tapes gathered during the day meetings and reports and discussions of results by parents of the various programs in which they were involved. In addition, these night meetings included presentations and discussions of such topics as behavior modification techniques, data collection and recording, delivery of differential reinforcement, or discussion of specific curriculum areas (i.e., language, self–help skills or motor development). One evening for each group was devoted to hearing problems of the TMR child. This topic was presented by Dr. Harlan D. Conkey of the Department of Speech Communication at Oregon State University.

Newsletters were distributed by the staff of Teaching Research to the parents and teachers to inform them of up–coming schedules and the format of the meetings.

As the year progressed, each parent who participated in the program was given additional tasks to teach at home. All parents had at least two tasks simultaneously by the end of the school year, but many had as many as four or five. The number of tasks that a parent was given depended on both his ability and the amount of time that he had available or was willing to give to teaching his child at home.

The types of home programs selected by the parent and teacher included all of the three basic areas of curriculum for the TMR child (i.e., language, self–help skills and motor development). In addition, some programs included decelerating certain undesirable behaviors that were occurring in the home, at school, or both.

Evaluation:

The effectiveness of this program is demonstrated primarily by the progress of each child on the individual programs provided by the teachers. Since the major objective of this project was to extend the school program into the home and thereby provide a better opportunity for each child to "catch up," the progress of each child is then the only true measure of success.

Since the major emphasis of this program was behavior modification applied to individual programs, no pre–post–test paradigm was utilized for evaluating the childrens' progress. However, individual records for each child were maintained on all programs in the areas of language, self–help skills and motor development. Baseline data for each child in the skills that were taught were determined and their various alternatives in the presentation of cues and the delivery of reinforcement were made. Records as to the effects of these alterations were maintained. These records were then recorded on graph paper for the performance of each child on each new behavior learned.

In addition to the objective data that evolved from this project, subjective data were also gathered through a detailed questionnaire that was given to the parents at the conclusion of the program. The purpose of this questionnaire was to obtain the parents' opinions of the success of this project. This information was obtained by requesting opinions on format of the meetings, topics, presentors and frequency. Questions also included information about their wishes for continuing the program.

Results:

Of the 31 sets of parents who were eligible to participate in this project, initally, 26 sets of parents participated regularly (84%). This participation included the maintenance of daily records, carrying out individual programs with their children, returning data to the teacher, and participating in most of the scheduled day and evening meetings. Most of the participants were mothers; however, at least 12 fathers also participated both in the evening meetings and teaching their child at home.

It was the opinion of the staff at Teaching Research and the classroom teachers that most of the parents did acquire basic knowledge of behavior modification techniques in order to present specific programs in the home. However, the teachers quickly found that whenever programs were not spelled out in detail that parents had difficulty in presenting the programs. Some parents also objected to the use of primary reinforcers (i.e., fruit loops, juice, etc.). In most cases these objections were eliminated when high rates of correct responses were the result. Parents also reported that they were utilizing these techniques to other areas not prescribed by the teacher.

The coordination of a parent program using this model presented some problems. For example, when the parent returned data with the child in the morning, the teacher found it difficult to analyze this data, make changes in the program and return it to the parent with the child when he left for home at noon (pre–school) or 2:00 p.m. (other classes). The demands of maintaining individual programs at school left little time during the school day for completing this task daily. Consequently, programs were sometimes allowed to run an extra day or two even though changes were indicated.

Feedback from parents also indicate some objection to the demands on their time. This feedback indicates that most parents are unwilling or unable to handle more than two programs at home on a daily basis.

A summary of the results of the questionnaire that was given to the parents indicate a general satisfaction with the program. Parents felt that utilizing a structured format in programs using differential reinforcement was a successful approach and that the general model of parent training was a successful one. One exception to this was the use of the video tapes to teach parents errors in their presentation. Many parents objected to this procedure because it embarrassed them and made them uncomfortable to be criticized in front of other parents. Perhaps playing the tapes privately for each parent would alleviate the parent's objections to the video tapes.

Parents generally felt that the program was successful and that they wanted to continue it in subsequent years. They indicated a general approval of both this model and the personnel who were involved in conducting the program.

The following is a report on the individual children. The data reported here are samples of the types of records and performances that were maintained on each child. The actual number of records is voluminous. To include all of them in this report would be inappropriate; however, these data are available through the Corvallis School System.

Student 1 – Sullivan Reading, naming numerals 1 to 20, getting numerals out of sequence, pointing to numerals 1 to 10 in random order, naming the numerals 10, 20, 30, etc.

3/18 to 5/28 – Worked on Sullivan Reading Materials

3/18 to 4/15 – Learned to name numerals 1 through 20

3/18 to 5/4 – Learned to name numerals out of sequence

4/20 to 5/25 – Learned to print the numerals 10 through 20 in random order

5/15 to 5/29 – Learned to name the numerals 10, 20, 30, ... 100

Student 2 – Counting numbers, sit ups, and Teaching Research Expressive Language Program No. 9.

1/6 to 5/29 – Learned to count from 1 to 15

2/11 to 5/28 – Her sit up behavior was effected by her heavy seizure activity; however, she was able to advance from 5 to 7 sit ups per session

3/2 to 5/28 – Advanced to item No. 200 on the Language Program No. 9

Student 3 – Recognition of numerals 1 through 8 and coin recognition.

11/17 to 2/20 – Demonstrated successful recognition of the numerals 1 through 10

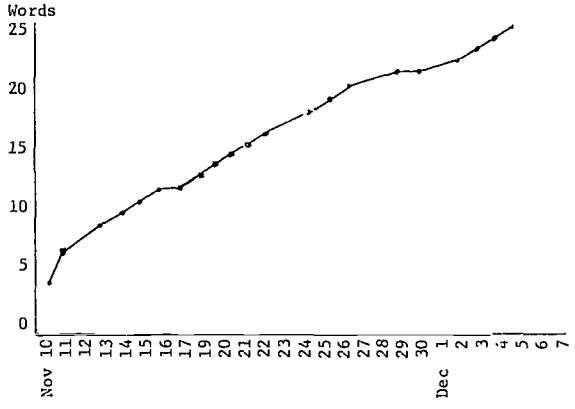
2/23 to 5/6 – Learned to correctly identify the following coin denominations: penny, nickel, dime, quarter, half a dollar and dollar. He also learned the equivalence that one nickel equals 5 cents, 5 pennies equals 1 nickel, 10 pennies equals 10 cents, 2 nickels equals 10 cents, up through the possible combinations equalling a dollar

Student 4 – Sight word vocabulary.

11/10 to 12/13 – Demonstrated progress in correctly responding to pictures by choosing correct corresponding words. The results on her being able to match 25 words to their appropriate picture over this time span can be seen in Figure I.

Figure I

Presentation of Words
Student 4



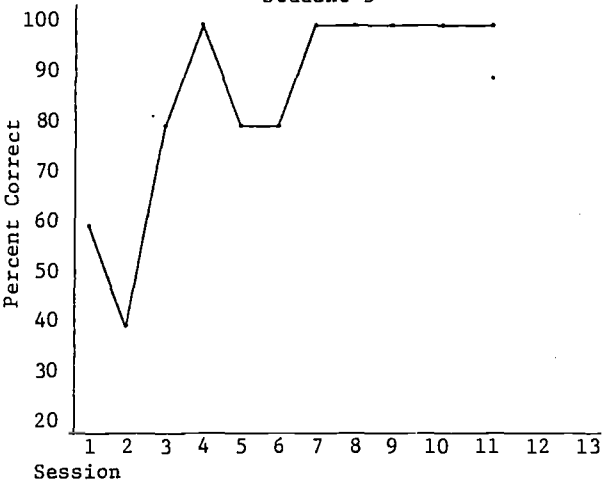
Student 5 – Learning specific times and counting to 15.

2/14 to 4/9 – Acquired the ability to respond correctly to *all* 8 prescribed conditions (e.g., 6:45 – time to get up, 8:00 – bus arrives, 12:00 – lunch, etc.) See Figure II

11/10 to 2/11 – Learned to count from 1 to 15

Figure II

Learning Specific Times (2:30)
Student 5



Student 6 – Identification by naming the colors red, blue and yellow, and a toothbrushing program.

2/2 to 4/19 – Learned to successful discriminate the three colors red, blue and yellow when presented randomly

4/21 to 5/10 – Successfully completed a toothbrushing program

Student 7 – Teaching Research Expressive Language Program No. 5; naming colors red, yellow, green and blue.

4/7 to 5/28 – Demonstrated success in mastering 120 items on Language Program No. 5

2/2 to 4/6 – Demonstrated ability to discriminate and name the colors red, yellow, blue and green. The data indicate that his performance was more consistent in the home than in the school. See Figure III for partial record.

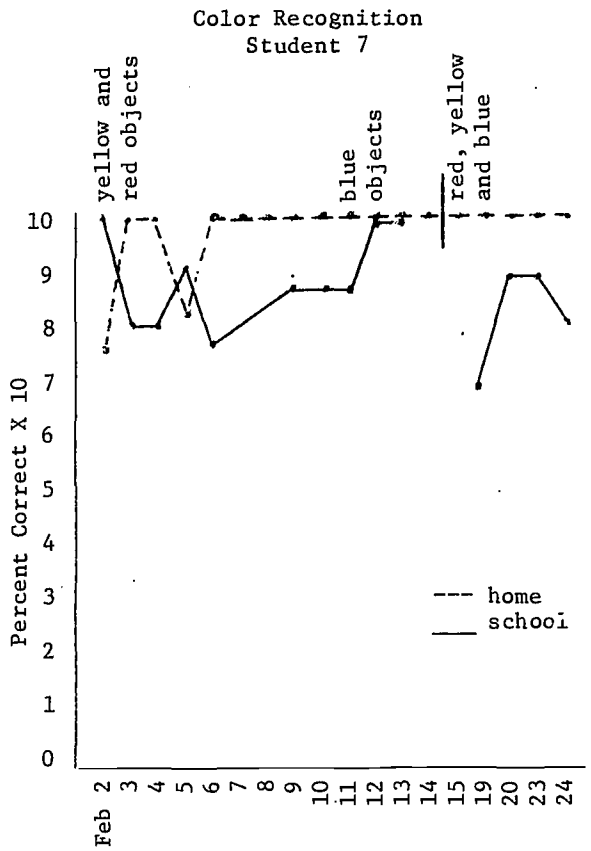
Student 8 – Counting in numerical order; printing his first name; recognition of lower case letters and matching with corresponding upper case letter.

1/12 to 5/29 – Learned to count from 1 to 40

1/19 to 3/6 – Demonstrated his ability to print his name ten times in ten minutes

2/13 to 5/28 – Learned to write lower case letters a through q

Figure III



Student 9 – Teaching Research Expressive Language Program, counting, sit ups.

2/1 to 4/15 – Completed Language Program No. 4 and progressed well into Program No. 5 (item 208)

2/19 to 5/26 – Learned to count from 1 to 6. The data from the sit up program are not clear

Student 10 – Teaching Research Expressive Language Program; sit ups.

1/1 to 1/13 – Completed Language Program No. 3

3/3 to 5/28 – Advanced in the Language Program No. 5 to item 329

2/19 to 5/19 – Increased from 2 sit ups per session to 10 sit ups per session, even though he was absent because of illness a large part of the time.

Student 11 – Teaching Research Expressive Language Program.

2/5 to 2/25 – Progressed through Language Program No. 3

2/25 to 5/19 – Completed Program No. 5 and has achieved 25 words in Program No. 6

Student 12 – Telling time.

12/22 to 1/18 – Progressed through the time telling program, which included being able to report minutes past the hour

Student 13 – Telling time.

11/17 to 5/17 – Made progress on the first step in the time telling program of counting to 60. She learned to count to 45 without error.

Student 14 – Teaching Research Expressive Language Program.

10/1 to 12/15 – Completed Language Program No. 2

1/13 to 2/12 – Completed Language Program No. 4

2/5 to 3/5 – Completed 48 items on Language Program No. 5

Student 15 – Recognition of numerals and tying shoes.

12/18 to 5/14 – Learned to recognize the numerals 1 through 9. Learned to tie his shoes in 8 days.

Student 16 – Recognition of his printed name; Teaching Research Expressive Language Program.

The data collected on the name recognition program were unclear and could therefore not be reported. The teacher's narrative report indicated that this student was able to work through Language Programs 2, 4, 5, 7, and 9; however, there is no data to support his actual progress in those areas.

Student 17 – Sight vocabulary.

No data reported on this program

Student 18 – Counting.

The teacher's narrative report indicates a general improvement in this student's counting ability; however, there is no account of her actual recorded behavior.

Student 19 – Pencil control.

The dates on this training program are not available; however, the data indicate that this student achieved control over his pencil, making no errors on his last 14 trials on a line tracing activity. Data showing his progress through two line tracing activities ranging from easy to difficult can be seen in Figure IV.

Student 20 – Teaching Research Expressive Language Program.

12/15 to 1/19 – Completed Language Program No. 1

1/19 to 5/27 – Progressed through item 22 in Program No. 2

1/19 to 5/27 – Progressed in Program No. 5 and demonstrated capability on 33 words in that program. According to the teacher's records a considerable amount of time was being spent

Figure V

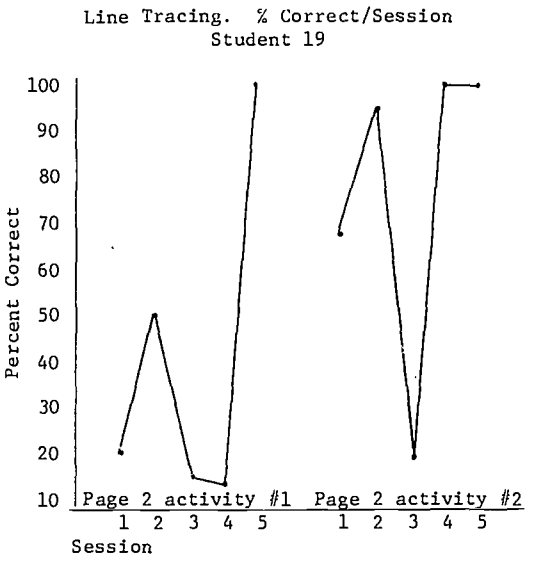
Sample of Student 20's Performance
on Language Program

Teacher	Correct Response		Incorrect Response		C	I	Reinforcer
	School	Home	School	Home		Home	
1. Move head (any movement acceptable)	3	3	0				
2. Move left arm	3	3	1				
3. Move right arm	3	2	0				
4. Move leg	3	3	1				
5. Move leg	3	3					
6. Nod head	3	1					
7. Move head side-to-side	3	1					
8. Shake head rapidly	3	1					
9. Shut eyes } : frightening							
10. Blink eyes } or if she							
11. Hold arm out to side	3	1					
12. Hold arm above head	3	1					
13. Hold arm out in front	3	1					
14. Arm to side, move in circles	3	3					
15. Open hand wide	3	3					
16. Open and close hand	3	3					
17. Touch hand to top of head	3	1					
18. Touch hand to head, then knee (thigh if laying on back)	1						
19. Touch hand to head, nose, then left knee.	2/3	1			2	1	
20. Touch hand to knee, nose, head	2/3	2/3			1	3	
	School 12-22	Home	School	Home		Home	
21. Hold arm out to side	3						
22. Hold arm above head	3						
23. Hold arm out in front	3						
24. Arm to side, move in circles	3						
25. Open hand wide	3						
26. Open and close hand	3						
27. Touch hand to top of head	3						
28. Touch hand to head, then knee (thigh if laying on back)	2				1	1	
29. Touch hand to head, nose, then right knee							
30. Touch hand to knee, nose, head							

Figure V (Continued)

Teacher	Correct Response		Incorrect Response		C	I	Reinforcer
31. Move feet	1	3					
32. Tap foot on floor	1			4			
33. Tap foot	2	2	1	3	3		
34. Bend knee		3		1			
35. Bend and straighten leg	1	3	1				
36. Move foot	3						
37. Tap foot on floor							
38. Tap foot twice							
39. Bend knee							
40. Bend and straighten leg							
41. Clap hands once				3			
42. Clap hands twice		3		1			
43. Clap hands over head		3		1			
44. Hands at sides, make circles		3		1			
45. Touch hands to knees		3					
46. Jump straight up (laying on back, lift both legs and drop)							
47. Bend both knees					3	1	3
48. Bend left leg, straighten right						4	
49. Bend right leg, straighten left						4	
50. Alternate bending legs						4	
51. Tap left foot and left hand on floor (if sitting, hand taps on table)							
52. Tap right foot and right hand							
53. Tap opposite hand and foot							
54. Tap opposites twice							
55. Drum feet on floor while clapping hands							
56. Circle forearms around one another (paddlewheel)							
57. Twist body from side to side							
58. Take a deep breath, hold one sec.							
59. Take a deep breath, exhale quickly							
60. Take a deep breath, exhale slowly							

Figure IV



on the program at home. The data on this child's performance on the Language Program can be seen in Figure V as an example of a program being closely coordinated between home and school.

Student 21 – Teaching Research Expressive Language Program No. 2.

2/5 to 5/5 – Successful on 15 of the items in Program No. 2.

Student 22 – Teaching Research Expressive Language Programs No. 4, 5, 7, and 9.

1/7 to 1/14 – Program No. 4 was begun and then dropped. The teacher's comments were that he was perhaps not ready for this program at this time

1/19 to 4/1 – Program No. 5 was successfully completed

12/15 to 5/25 – Progressed through the 154th item in Program No. 7

4/23 to 4/27 – Worked on Program No. 9, naming objects.

Third Party Evaluator's Comments:

The concept behind this program obviously has merit since it does respond to needs expressed by parents and does attempt to provide a more intensive and extensive education for the more severely handicapped child.

There were four objectives stated in this program:

1. To provide parents with a basic knowledge of the principles of behavior modification.
2. To coordinate learning experiences between the school and the home so as to accelerate the learning process for the child.
3. To have the parents utilize behavior modification techniques in the home employing cues and reinforcement similar to those being utilized in school, and maintaining records of performance of the child.
4. To extend the utilization of these behavior modification techniques in the home to language, motor, and self–help skills so as to effect significant changes in specific behaviors in these areas:

Objectives 1 and 3 were obviously well completed.

The performances of the parents with the children indicate that most of the participating parents have mastered the techniques of behavior modification. Moreover, it is obvious that the parents accepted the model. In reply to the questionnaire administered to the parents, only one parent indicated that behavior modification techniques used during this project had not been an adequate method for helping her teach her child. All parents except one indicated that the model should be used in the future.

A discussion of whether or not objectives 2 and 4 were accomplished must be approached more cautiously. There is no doubt that all the children made sizable gains in the programs specified to be administered both at home and in the school. By design of the project there is no way of determining whether or not these gains would have been accomplished without the parent's assistance. A better breakdown of the data between home accomplishments and school accomplishments would have been desirable, so that the results could have been more definitive.

By observation of the project in operation, the third party evaluation team concludes that there can be no doubt that the success of any parent program is a function of the efforts and attitude toward the program of the teacher. The total acceptance of the program by the pre–school teacher in this school district was reflected in the total participation by pre–school parents, contrariwise, in another class, the teacher's rejection of the program was reflected in the poor participation by the parents of children in that class.

In general, this project has value to handicapped programs throughout the State in that it provides a model for training parents how to successfully interact with their child. The model seems to work although it should be replicated in other locations before final judgment of its value can be made.

Project Title:	*Harney Precision Teaching Project: Dual Project for Training Young Speech Impaired, Moderately Retarded Persons and Academic Habilitation of Learning Disabled Primary Students in Harney County*
Type of Project:	*Trainable Mentally Retarded and Extreme Learning Problem*
Location:	*Burns*
Funding Allotted:	*$8,024.50*
Number of Children Served:	*5 (TMR) and 8 (ELP)*

Background and Rationale:

This project was developed as a result of the previous year's activity. In Harney County there are relatively few facilities available for the education of trainable mentally retarded children. Last year the I.E.D. in Harney County set up a program to provide education for a few trainable children. None of the children in the program at that time had ever had any formal training. The program was deemed as successful and therefore this program was continued for another year.

In addition to the TMR program, the I.E.D. also designed a program for the treatment of dyslexic children. These two programs utilize the same facilities and the same teachers. This may at first seem like an unusual grouping. However, when teachers are able to incorporate individualized instruction and are supported with aides they can readily handle small groups with a variety of learning problems.

The project was conducted on a half–day basis five days a week. The retarded children ranged in chronological age from 3 to 12 years and in mental age from approximately 2 years to 5 years. The other group was comprised of 8 first and second grade children who demonstrated severe learning problems in reading, in spite of normal intelligence.

Class sessions were begun early in October. The dyslexic children received an intensive program of visual, motor development, and reading instruction. The class for retarded children was composed of children in their second year of attendance, and two others were added during the year. They were given a variety of activities to improve visual motor integration, self–care skills, social behavior, and language development.

The main project staff consisted of a teacher and an aide. These personnel were supplemented from time to time with volunteer help. Overall supervision of the project was provided by Dr. Mary Howden, I.E.D. school psychologist and specialist in learning disorders. The project staff engaged in a variety of inservice type activities ranging from receiving instructions from their supervisor to the attendance of formal classes. Parent training programs were also attempted on a limited basis; however, each parent was encouraged to work with his child in the home situation.

Objectives:

The objectives for this project were specified in two separate sets, one for the TMR children and one for the dyslexic children.

Objectives for the TMR program:

1. an improvement in verbal communication skills
2. an improvement in self–care skills
3. an improvement in ability to behave inconspicuously in public
4. an improvement in a child's skill in physically manipulating materials

Objectives for the dyslexic children:

1. the child should approach the task of learning to read and write rather than learning to avoid it
2. the child should be able to identify the class of things known as letters and words and know that significant, meaningful differences exist
3. the child should be able to discriminate and write reversible and rotatable letter forms without error
4. the child should learn and apply phonetic, structural and context word attack skills at a level appropriate for his age and grade placement
5. the child should be able to write and spell at his age and grade placement
6. the child should be able to read at his age and grade placement with at least 95% accuracy and recognition of 75% comprehension
7. the child should preceive himself as an acceptable, competent person
8. the child should have normal speech and language skills for his age.

Evaluation Plan:

The post–testing which occurred during the 1969–70 Title VI project was to serve as baseline data for those who participated last year. Other children were to be given an appropriate individual test of intelligence, the I.T.P.A., Meacham Language Scale, Vineland Social Maturity Scale, Peabody Picture Vocabulary Test, Beery–Buktenica Development Test of Visual Motor Integration, Frostig Developmental Test of Visual Perception, Goodenough–Harris Drawing Test, Kephart Perceptual Rating Survey, and an articulation inventory.

Figure I

	Student #1 5-1-65		Student #2 10-4-57		Student #3 3-15-66		Student #4 11-26-57	
Measure	Pre Test	Post Test	Pre Test	Post Test	Pre Test	Post Test	Pre Test	Post Test
Chronological Age	4-9	5-1	11-9	12-8	3-6	4-3	11-6	12-6
STANFORD BINET LM								
Mental Age	3-11		3-2		2-1		3-8	
IQ	81		34		56		37	
GOODENOUGH-HARRIS DAM							Below	
Standard Score	74	65	54	53			49	49
PEABODY PIC. VOC. A								
Mental Age			2-2	3-4			2-8	
IQ			Below 10	28			14	
PEABODY PIC. VOC. B								
Mental Age			2-6				2-8	3-0
IQ			17				21	26
FROSTIG VIS. PERCEP.								
Eye-Motor Coordination		5-3	4-9	3-9			4-9	6-3
Figure-Ground: Age		3-6	3-3	4-0			3-6	(Not Completed
Const. of Shape: Age		4-6	2-6	5-0	Not		2-6	Because of
Pos. in Space: Age		3-3	3-3	4-9	Appropriate		5-0	absence-
Spat. Rel.: Age		5-6	4-0	4-0			4-0	5-6
(Ave. Percep. Age)		4-5	3-7	4-4			3-11	
Perceptual Quot.		94	30.2	34.2			34.3	
BEERY: VIS. MOT. INTEGR.					Not			
VM Integration Age	4-4	4-6	4-4	4-1	Appropriate		4-1	4-9
ILLINOIS TEST OF PSYCHO LINGUISTIC ABILITIES								
Representational								
Aud.-Vocal								
Aud. Reception		4.7	2-1	2-1		2-6	2-1	2-6
Aud. Assn		4-5	2-4	2-4		2-4	2-8	2-10
Verbal Expr.		4-8	2-2	2-2		2-0	2-9	3-1
Visual-Motor								
Vis. Recept.		5-10	4-1	4-10	Below	2-1	3-1	5-10
Vis. Assoc.		3-6	2-6	2-4		2-8	3-10	5-3
Manual Expr.		3-8	2.2	3.2		3-0	3-6	4-0
Automatic Level			Below	Below		Below	Below	
Aud.-Vocal			2.0	2-0		2-0	2-0	Below 2-0
Aud. Memory		6-0	Below	Below		Below	Below	
Grammatic Closure		3-7	2-2	2-2		2-2	2-2	2-6
Visual-Motor								
Visual Memory		4-10	4-4	2-1		3-7	4-1	3-10
Visual Closure		4-6	3-3	3-3		2-2	4-10	6-6
Supplementary								
Aud.-Vocal								
Aud. Closure		4-2	2-0				3-1	
Sound Blending		5-6	3-8				4-6	5-0
ITPA Composite PLA		4-6	2-6	2-5		2-4	3-0	3-9
MECHAM VERBAL LANG. DEVELOPMENT SCALE								
Language Age	3.80	3.90	1.94	2.44	1.11	1.50	2.67	3.10

The portion of the project which served the dyslexic children was also to be evaluated using pre– and post–test which would include the daily record keeping system utilized in a precision teaching model. It was planned that this group would also have a control group who did not receive the specific treatments available in this program. Performance of the experimental and control group children will be compared on a variety of standardized tests of reading readiness, reading achievement, reading subscales and a variety of other tests used by the individual school districts.

Results:

The results reported in the director's final report on this project are voluminous and well documented. However, as might be anticipated from the number of pre– and post–tests that were planned to be utilized a great deal of difficulty arose. Many of the tests that were originally described by the director as being utilized to measure performance change were found to be bulky, not sufficiently sensitive, and not applicable.

For the TMR group, the daily data recording systems would indicate that all of the children were able to progress on the individualized programs which ranged from verbal behavior to simple manipulation of physical objects.

The standardized tests which were given can be seen in Figure I. It can readily be seen from this chart that not all the tests were given to all the children pre– and post–. On those formalized tests that were given there were relatively few changes between the pre– and post–testing sessions. If there is one area that seems to indicate change it would be in the area of language development as measured on the Meacham Test. It should be noted though, in light of very little improvement, that these tests are based on standard normal growth and development and that all the children did seem to improve in some areas, and in no cases are there drastic reductions in performance.

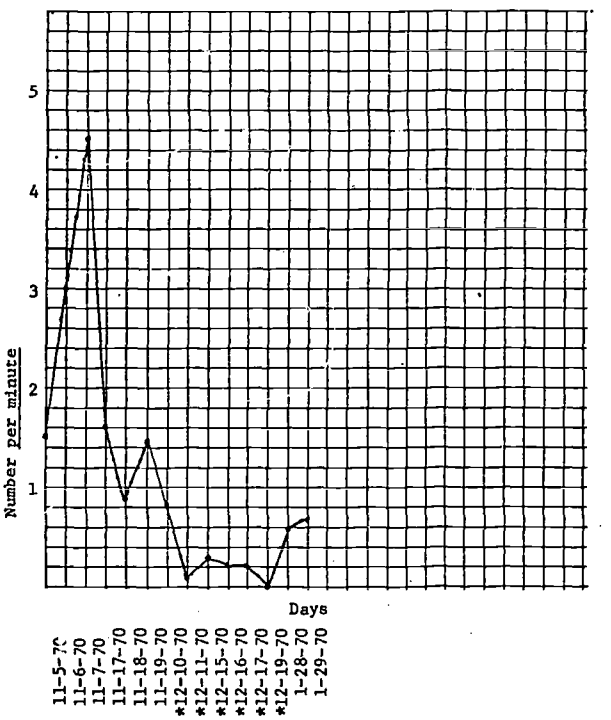
In the area of the dyslexic children a large number of daily activities were recorded and graphed. With these children there were frequently many disruptive behaviors which were pinpointed as those being decelerated. One example that is present throughout many of the children's programs is an attempt to reduce the number of talk–outs or inappropriate talking that they do during class time. A representative sample of this kind of a program and its results can be seen in Figure II.

When comparing the performance of the experimental group with the control group on the various standard tests it becomes very difficult to make any statements concerning the differences in change scores between the two groups. The main reason for this difficulty is that both groups did not receive in all cases the same tests, both pre– and post–. In those cases where obvious comparisons can be made it would appear that there has been very little change or differences between the experimental and the control group on the

Figure II

Date 11/5/70 to 1/29/70

Number Talkouts for T.M.



Goodenough–Harris Drawing Test; however differences do seem to be present on the Beery–Buktenica Developmental Test and the I.T.P.A. Sound Blending Test. At least these last two tests would indicate that the control group demonstrated more improvement on the average than the experimental group did.

A rating scale which was used by the teachers which is subjective in nature and indicates the teacher's rating of the child's progress during the year would seem to indicate that the teachers in both groups felt that most of the children were able to demonstrate some improvement with many falling in the much improvement range.

Third Party Evaluator's Comments:

The director's final report contains many individual reports on various children in many areas. The third party evaluation team, however, found it necessary to summarize the general findings. Any reader interested in examining the data in further detail should be referred to Dr. Howden's very excellent final report.

It must be concluded that several of the objectives as originally stated and the evaluation procedures outlined for those objectives were not achieved. However, a sufficient amount of progress was made in other areas that would tend to warrant this project as successful.

There were many difficulties which arose as a result of the vast amount of formalized testing that was proposed.

Some of the objectives were obviously unrealistic in the amount of time that was available to work with the particular children. A good example is the objective which states that by the end of the project the children's reading level will be equivalent to their grade placement. In a group as small as this, which has many intensive problems, it would seem most appropriate to utilize those data collection systems which are sensitive to small increments of change, such as daily recording systems. These systems were in fact used in this project on many of the children and do in fact indicate a change in a positive direction.

Another thing which this project was able to demonstrate is that children with a variety of educational problems can be educated in the same facility by the same teachers. This would seem to be an outstanding piece of evidence against the segregated classroom approach. It is this evaluator's recommendations that if this project is continued that the objectives be stated in terms of smaller increments of change and that the evaluation collection systems be almost entirely devoted to daily performance records with the inclusion of only a few formalized tests.

In summary, the project had many evaluation difficulties; however, on those data that are available change is certainly evident and the project should be considered as successful.

Project Title:	*Southern Oregon Regional Center for Hearing Evaluations*
Type of Project:	*Hearing Evaluation*
Location:	*Jackson County Intermediate Education District* *Medford*
Funding Allotted:	*$18,404.57*
Number of Children Served:	*321*

Background and Rationale:

It is estimated that approximately 5% of the school age children have a hearing impairment of some kind and that from one to two out of every ten in this group requires special education attention. If this is the case, there are approximately 4500 students who would require audiological assessment and treatment in the Southern Oregon area. The nearest hearing center for people residing within the seven southern Oregon counties was located at Eugene prior to the establishment of the center at Jackson IED in Medford. Many children were not served due to inconvenience or lack of information. Frequently a center that is not immediately accessible to the children results in no service being provided. Parents often do not follow through on recommendations when the costs and inconvenience are as unreasonable as they are in southern Oregon. This distance from a center has been improved at least to a degree. For example, more children are being served from Klamath county than in the past.

Objectives:

The objectives were to provide hearing impaired children residing in southern Oregon with the following audiological services:

1. *Audiological assessment.* Includes standard hearing tests for determining type and degree of hearing impairment which are pure, tone air and bone conduction audiometry and speech reception threshold and speech discrimination tests.
2. *Special diagnostic audiological tests.* Includes such tests as Tone Decay, Short Increment Sensitivity Index, Sensory Acuity Level Test, special tests for non–organic deafness, and infact screening.
3. *Hearing aid evaluation.* Includes hearing tests to analyze the hearing impaired person as a hearing aid user and to help him discover one or more instruments which satisfy his hearing requirements as reasonably as they may be expected.
4. *Physician referral.* To insure medical evaluation and treatment when needed.
5. *Student, parent, and teacher counseling.*
6. *Recommendations for follow–up.* Speech therapy, speech reading, auditory training, language development or tutoring of the school subjects.
7. *Inservice training.* For classroom teachers and parents regarding hearing loss.

Methodology:

As a result of Title VI funding, the Jackson County IED secured the services of a masters level audiologist and purchased the necessary equipment to conduct evaluation services referred to in the objective section. The project was somewhat late in getting into full operation and subsequently the number of children to be seen, as projected in the original proposal, could not be achieved. This center was designed as an evaluation facility that would take referrals from the southern Oregon area. For a child to be eligible to receive service at this center he had to meet the Title VI qualifications for participation. Referrals came from the following sources: a) Oregon State Board of Health, Hearing Conservation Program; b) Public Health Department; c) Speech and Hearing Therapist in southern Oregon; d) Headstart Program; e) Speech and Hearing Clinic, Southern Oregon College; f) Crippled Children's Clinic; g) private physicians.

Once the child entered the center there were several alternatives available to him depending upon his referral and the findings of the center. The following is a general description or the general methodology applied in this project. A further breakdown for the components of these general aspects can be found in the evaluation section where each area is described in terms of the specific service utilized and the frequency of its use.

One of the services the center provided was a *general screening* for any students with no previous testing or with a specific referral for a particular type of evaluation. Pure tone tests are given as well as speech evaluations. *Medical referrals* can be made; the type and frequency of medical treatments are documented in the evaluation section. *Hearing aid evaluations* are available, as well as tests for functional hearing loss. When deemed necessary a *counseling program* can be utilized to help the child cope with his problems. Guidance given through these services are usually the recommendations for educational services or treatment and the placing of the child in situations whereby they can in fact receive the educational service. In order to accomplish these services it is necessary to educate the community at large; therefore, an *inservice training program* is available to support the function of the center.

Evaluation Plan:

It was agreed between the project director and the third party evaluators to report on information in five different areas. These areas are as follows:

1. The number or children referred to the clinic.
2. A record of the recommendations made by the clinic.
3. The treatment the child subsequently received.
4. Pre– and post–test measures of the evaluation assessments indicated in the original proposal.
5. Subjective comments by the project staff and others who utilized the service.

Results:

The results sections will be discussed by examining in detail each of the general areas of service that were specified in the original proposal which are:

1. screening
2. pure tone threshold
3. speech
4. medical
5. medical referral
6. hearing aid evaluation
7. functional hearing loss
8. counseling
9. recommendations for educational services
10. inservice training

The project director has submitted some information to further define some of the service areas as they were interpreted by this project. The following preliminary comments are presented to afford the reader a better understanding of some of the areas of service.

Counseling

Counseling is necessary with all individuals receiving the service of an audiologist. This will entail explaining the service rendered and the results found whether indicative of a pthology or within normal limits according to prime normal or American Medical Association criteria. Further, it is necessary whenever there are recommendations for special services such as speech reading, auditory training, preferential seating and/or amplification. This counseling service is not only for the individual under test but for those parties that are interested in the individual.

Inservice Training

Inservice training takes place when the program presented explains the function of the service, use of the service, interpretation of the results received from this service, and more especially how the service relates to those receiving the inservice training.

Hearing Aid Evaluation

Hearing aid evaluations are initiated on all individuals who demonstrate a communication handicap that cannot be corrected medically, due to a deficiency in hearing. Evaluation is to determine if the individual benefits from some form of amplification, i.e., with improvement in communication and/or awareness of his environment. Follow–up evaluation is provided by the audiologist to determine if the aid obtained is as good as the initial hearing aid recommended.

In reviewing the following information the reader should keep in mind that any particula. child referred to this program could, and probably did, receive more than one treatment service; therefore, the numbers reflect the number of services provided for all children.

1. *Screening* – screening services were provided or available for two different types of children, pre–schoolers (39) and school age children (49).
2. *Pure tone threshold* – under this type of testing there were two specific types of examinations were conducted, air conduction (184) and bone conduction (137).
3. *Speech* – nearly everyone referred to the center received a speech evaluation in at least one of three areas. The areas of testing were speech reception threshold (192), speech discrimination (123), and speech testing with background noise (74).
4. *Medical* – The following medical areas of evaluation were available; the numbers of children receiving these were as follows:
   a. tone decay (11)
   b. binaural loudness balance (5)
   c. monaural loudness balance (0)
   d. difference limen (0)
   e. Short Increments Sensitivity Index (17)
5. *Medical Referral* – of those children seen 83 were referred for medical treatment. Forty–seven of these children were followed–up after medical treatment and results indicate that 30 were in fact corrected as a result of this treatment and that 17 were still under treatment.
6. *Hearing Aid Evaluation* – 14 children were evaluated concerning their hearing aid and its effectiveness and 10 of these children were followed–up after the evaluation was completed. However, there were no other data available to indicate the effectiveness of this hearing aid evaluation.
7. *Functional Hearing Loss* – the number of children who utilized this service was as follows: pure tone Stenger (3), speech Stenger (5), Doerfler Stuart (0), Lombard (5), delayed auditory feedback (5).
8. *Counseling* – counseling was made available to a variety of persons, including students to help them function up to their capacity. The various counseling services that were provided were as follows: children (178), family (226), teachers (25).
9. *Recommendations for Educational Services* – as a result of the center's evaluation, it was often recommended that specific educational services be provided. These recommendations were made for 224 cases. The following is a list of those services that were available and were in fact, utilized as a result of

recommendations of the center. The numbers reflect the number of children involved in the various services.

a. social skills (85)
b. language development (23)
c. speech reading (85)
d. auditory training (85)
e. tutoring class (7)
f. pre–school activities (16)
g. regular classroom (181)

10. *Inservice Training* – inservice training regarding the most efficient use of the recommendations from the center as well as information as how to help the child cope with his problem was provided for a total of 285 persons. Those groups receiving inservice training were as follows: classroom teacher (109), parents (77), college students (34), speech therapists (9), welfare personnel (37), DVR personnel (19).

A summary of the audiological evaluations conducted follows:

Referrals were received *from* medical (41), speech and hearing personnel (169), RN's (46), others (36). Total contacts 292.

Recommendations made were as follows: medical (83), speech auditory training (85), hearing aides (14), other (includes counseling) (139), total 321.

In support of the effectiveness of this project are six letters contributed by various professionals in the area including teachers, nurses, physicians and the Easter Seal Society. All these indicate that the services now available at the Jackson County IED Center for Hearing Evaluations have been extremely helpful to the community. All letters recommend continuing this function indefinitely. The audiologist employed by this project also indicates that he has contacted 44 groups or organizations during this project in relation to promoting the center's use.

Third Party Evaluator's Comments:

The results of this project would tend to indicate several things. First, by the number of children seen, this center was able to provide a service that was previously non–existent in southern Oregon. It appears that there has been a great deal of cooperation established between this center and other community organizations to provide a central source of referral to those children having hearing difficulties. In most cases the services provided by the center seem to be quite adequate.

There were, however, few data gathered which would support the effectiveness of any prescribed treatment programs. It may well be that in this first year of operation it is necessary to establish communications with other sources that have developed an effective diagnostic center and that a detailed evaluation of the total effectiveness of the programs should be examined in the continuation of this project. The original objectives have all seemed to have been achieved with the possible exception of being able to document with pre– and post–tests the amount of change that occurred in any one child as a result of treatment. A letter of support from the director indicates that some of these data are available through individual audiological records of the child; however, these would need to be summarized and some general statements made concerning the effectiveness of various services. This does not seem to be an unreasonable request and it is included in next year's project.

It also seems logical to recommend that this project employ at least on a part–time basis, additional staff members that might have the sole responsibility of gathering information to support the effectiveness of various programs. The present staff consists of one audiologist whose functions are so numerous that it would be very difficult for him to conduct all the evaluation activities by himself.

Overall the project seems to have met most of its major objectives and would therefore seem to be deemed as successful. It should be emphasized, however, that during the subsequent years of operation when a full year of service is possible, that a more thorough evaluation of the effectiveness of the various treatment strategies should be made to allow the project personnel to make decisions concerning which services should be expanded and which services should be altered.

Project Title: *Jackson County Intermediate Education District Pre–School TMR Program*

Type of Project: *Pre–School TMR*

Location: *Jackson County Intermediate Education District*

Funding Allotted: *$16,057.72*

Number of Children Served: *10*

Background and Rationale:

There were no educational facilities available to the TMR pre–school child in Jackson County at the time of this project. It was felt by the IED that success of this program would demonstrate that such training of our research bases would be both practical and possible. It would also indicate the need for this type of program by identifying numbers of children who are presently unable to participate in training programs within their residential areas. Jackson County Association for Retarded Children had indicated that it would actively support this program. This support would include the providing the facilities to house the class, identification of potential students, dissemination of information, publicity, recruiting of volunteers to assist the teacher and any other way in which their resources could be utilized to its fullest potential.

Projecting into the future, the IED indicated that the present program should be the beginning of a full county program for all levels of TMR children, to include the primary, intermediate and advanced age levels in the future years. Currently there are seven classes for the educable mentally retarded, four speech therapists and four teachers of hearing hearing in Jackson County Intermediate Education District's Special Education Department. Initiation of a pre–school TMR class should significantly augment the special education services of Jackson County.

Objectives:

1. Provide pre–school training for the trainable mentally retarded child.
2. Provide training for parents of the trainable mentally retarded child.
3. Provide in–service training for teachers and aids and volunteers of the trainable mentally retarded child.

Methodology:

This program involved a nine and one–half month school year program for identified pre–school TMR children and included a period of in–service teacher training for the teacher and aide; it also included parent training and the training and utilization of para–professionals. Eleven TMR children were provided the service which was not previously available to them.

In–service training was conducted prior to the commencement of the pre–school operation. The in–service training consisted of one day of lecture and demonstration with the principles of behavior modification. This was followed by four days of practical application in which the teacher and the aide worked with the children and began techniques of classroom management which would be such an essential part of the entire program. The performances of the teacher and the aide were video–taped during the morning session as the classes were being held. They were played back to the teacher and the aide in the afternoon at which time a critique was offered by the staff of Teaching Research.

Three major subject areas compromised the curriculum of the pre–school; self–help skills, language, and motor development. These were in keeping with general guidelines which prevailed in other TMR programs being funded by the Mental Health Division by the provision of House Bill 1217.

Self–help skills include the basic dressing, eating, toileting and personal hygiene behaviors plus the more advanced stages of self–care, characteristic of the usual trainable programs. To establish individual programming in this area, as in the other area, it was necessary to engage a detailed task analysis of these rather complex behaviors and to sequence the steps necessary to achieve the learning of the behavior. The second part of the curriculum addresses itself to motor skills. The Teaching Research Motor Development Scale was used as a diagnostic instrument to determine the motor functioning level of each child. This provided a basis on which to make decisions concerning the child's strengths and weaknesses in motor behavior. It was then related to the learning activities to be sequenced and programmed in accordance with a task analysis of each of the behaviors.

The third aspect of the program was devoted to language. Language is defined so as to include both receptive and expressive oral language and receptive and expressive written language. Receptive oral language must necessarily start with attending behavior, with the instructor insuring that the child attends to the task at hand. Therefore a program was devised to enable the child to respond to simple commands, then multiple commands and utilimately respond intelligently to abstract concepts.

The children attended school daily from 9:00 a.m. til 1:00 p.m. during which time each child worked on anywhere from four to six individual programs. In addition, all participated in a group lunch situation in which the volunteers, the teacher, and the aide assisted the children as needed. This lunch period was used as a period of instruction and therefore became part of the regular class program.

The program utilized forty high school girl volunteers. The girls ranged in age from fourteen to eighteen. Each girl worked four hours, which is a full school day, once every three weeks, so that once every three weeks she was excused from school for an entire day. The forty girls rotated on a schedule to supply five volunteers per day for three days each week. Other volunteers were used on the other two days of the week. One parent and several other regular volunteers participated. Interested parents were invited to work as volunteers with the stipulation that they never worked with their own child and that if the child was distracted by the parent's presence, she would be asked to leave.

Evaluation Plans:

The evaluation plans as outlined in the original proposal were as follows. Individual records for each child would be maintained in three basic areas, language arts, motor skills, and social development. A base line for each child in skills to be taught would be established and that various alterations of the presentation of cues, materials, and reinforcements will be made; records as to the effectiveness of these alterations will be maintained. Thus over a period of a year an extensive volume of data regarding the performance of each child for each behavior learned would be maintained and would provide the basis for the evaluation of the project.

Results:

The results of this project are presented in a form of individual records for each child. In many cases, only one of the behaviors has been described graphically; however, progress in other behaviors are alluded to in the discussion of the child. For the most part, the report on each child follows a general introduction, then cites progress in language skills, motor skills and self–help skills.

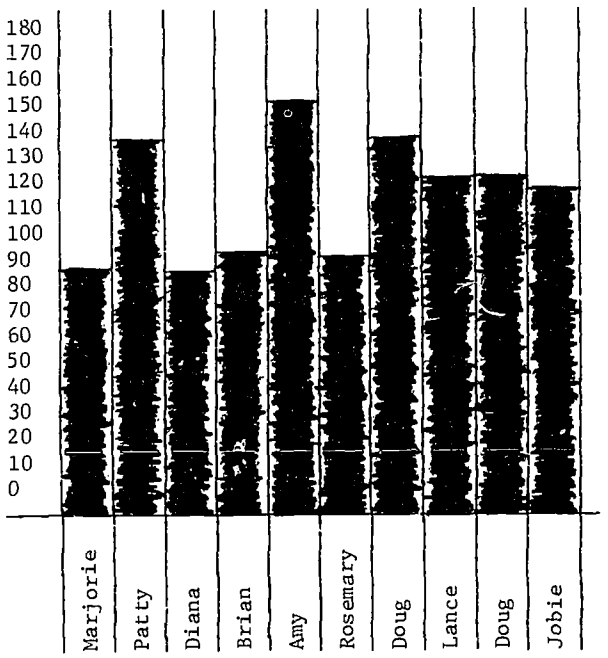
Because these are very young TMR children, there was a problem with the number of full days of attendance. The data for each child should be examined in terms of its relationship to his attendance in the program and therefore these data are reported in Figures I and II.

Figure I
Pre-school TMR 1969-1970
number of days attending class

Note: due to incomplete records for first month, figures subject to 10% error except for Diana, Brian, and Rosemary, who did not attend that month.

Marjorie	88
Patty	135
Diana	88
Brian	93
Amy	150
Rosemary	90
Doug	136
Lance	120
Doug	120
Jobie	116

Figure II
Total number of days: 180



Marjorie

Marjorie is seven years old, does not respond to directions; is extremely difficult to motivate. At the beginning of the period she had to be force fed, had bowel movements only with laxatives, exhibited a high degree of sucking and squeezing of objects and whined and shook when excited.

Her progress during the period: in language her eye contact increased from a duration of nothing in September to an average of 5 to 10 seconds by May. In receptive language she responds to several instructions, including "put your lunch away", "take your hat off", "sit in the chair", "take off your coat", and so on. In expressive language she reached criterion level on six specific motor imitations of the initial expressive language program. Vocalizations have increased from zero during normal routine to 11 per half hour on April 30 during normal routine.

Figure III shows progress which Marjorie made on a zylophone. This is an example of her receptive language training. An oscilliscope was tried to stimulate language with the child. It was demonstrated that the incidence of her whining sounds increased due to the visual reinforcement of the oscilliscope.

An interesting aspect of this child's verbalization is that her verbalization increased when adults in the program increased their attention to her by trying to get her to respond to a reinforcer, which in this case was apple juice squirted into her mouth which she was refusing.

Her self–help skills: Intake of food during class lunch has increased from nothing to an average of one and a half cups of milk, five crackers, and a piece of cheese. These finger foods were picked up and eaten by Marjorie at the end of the program, where as previously she would only eat food when it was placed in her mouth and most of the time refused it even then.

The child exhibited a large amount of running away behavior when the program first began. This behavior was extinguished and the child now no longer runs away from the classroom. Marjorie exhibited no improvement in toilet successes. It took Marjorie five months to get her first success on the toilet.

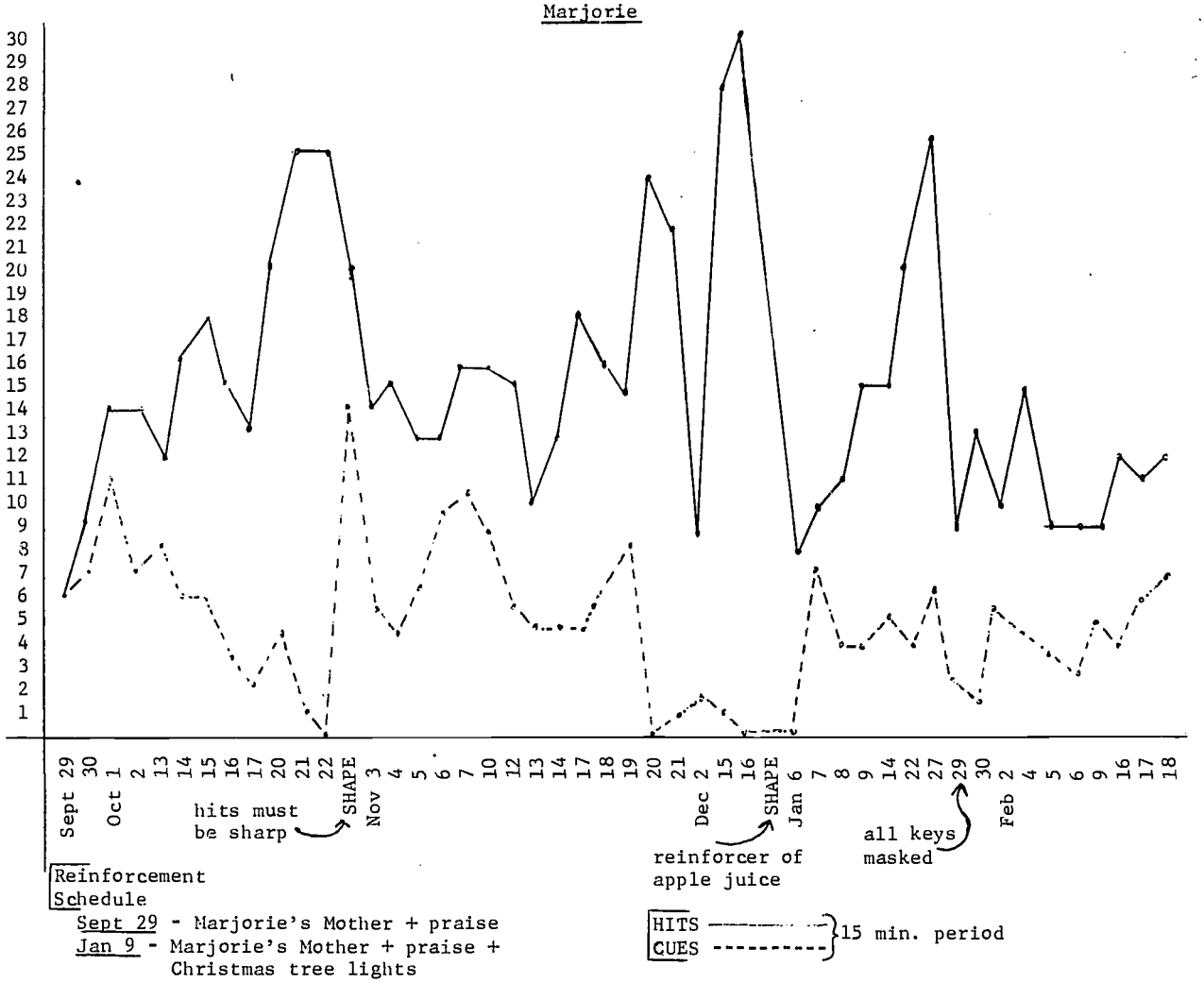
Motor Development: Marjorie participated in a shape sorting exercise which indicated no general improvement.

Marjorie exhibited perhaps the least progress of any child in the class. However, we felt that she was much more manageable and with future schooling will progress. The pre– and post–test required by 1217 funds indicated the following results: On the pre–test on the Gurtzburg PAC she scored 47, on the post–test a 38. This may be due

Figure III

XYLOPHONE

Marjorie



largely to the mother now being much more realistic for recording their child's progress in this area. On the pre–test she indicated ten items that she felt the child could do; it was obvious after observation of the child that the child could not perform these; the mother marked only three erroneous items on the post–test. It is believed that the involvement of the mother had some effect on improving her realistic appraisal of the child. On the Parsons Language Test the pre–test score was blank and the post–test score was two. On the Teaching Research Motor Development Scale the pre–test score was six and the post–test score was three.

One of the most difficult aspects in teaching this child was finding adequate reinforcers for her. The most effective reinforcers were her mother, flashing lights, and taped lion roar. Even these could only be used as temporary reinforcers, for the child would lose interest in any one of them and the reinforcers had to be rotated. In addition the child's class attendance was extremely poor, being present only 50 percent of the time.

Patty

Patty is eight years old. At the beginning of the period Patty responded to directions and spoke in two or three word sentences. She dressed and fed herself, was toilet trained, and exhibited good coordination. She was, however, very tense.

Language: She completed the entire initial expressive language program No. 9 in the period from March 4, 1970 to May 1, 1970. Her sentence lengths increased from an average of two to four words to occasionally as many as six words in a sentence.

Written language: She had learned to write her entire name. An interesting aspect of this learning was that it took her three months trying to learn to write the letter "y" prepared with two slanting lines. When the requirement was changed to a "u" and a straight line beneath it to form the "y" she learned to write it very quickly. This phenomenon was exhibited in one other child, Lance.

In receptive written language she has learned to identify and name all letters up to letter "s". Patty has learned the matching, finding, and naming skills for the nine colors which were basic to the class.

Motor Development: She reached criterion level on shape sorting in only eight sessions. She was the only child that completed all stages of all stage puzzles available. Figure IV shows the sequence of her development and completion of this task. It was noted that Patty was quite tense when she started the class. During the course of the year she was moved from being extremely withdrawn to being an active extroverted child with much spontaneous verbalization. On the 1217 pre– and post–test scores for the Parsons Language she scored 44 for pre–test, 51 for post–test. On the Gunzburg Progress Assessment Chart she scored 44 on the pre–test and 48 on the post–test. On the Teaching Research Motor Development Scale she scored 78 on the pre–test and 126 on the post–test.

Figure IV

STAGE PUZZLES

Patty

Card	Stage 2	3	4	5	6	final
Dog	10/23	10/23	11/4	11/4	11/4	11/5
Cat	11/8	11/8	12/12	12/12	12/12	12/12
Horse	10/28	10/28	10/10	10/30	10/31	10/31
Rabbit	11/10	11/10	11/12	11/12	11/12	11/12
Apple	11/13	11/13	11/13	11/13	11/13	11/13
Orange	11/13	11/13	11/13	11/13	11/13	11/13
Peach	11/14	11/14	11/19	12/2	12/3	12/3

Please indicate completion of stage by writing date in appropriate square.

Stage is considered complete when segments can be assembled from any possible arrangement. (random scatter)

To receive credit for "final" stage, child must assemble puzzle without reference to complete (Stage 1) picture.

Amy

Amy was fourteen months old at the beginning of the school year. She did not walk, was not toilet trained, had no verbalization but did babble extensively. She had begun to feed herself, she crawled and stood for short periods holding onto a table. Amy is a mosaic mongoloid.

Language: Amy reached criterion level in 4 specific motor imitations of the expressive language program. Imitates specific speech sounds (words of color, names, etc.) when requested approximately 50 percent of the time.

Self–help skills: Progressed from sitting in walker to walking independently, standing unaided, and preferring walking to crawling. See Figure V "support walking" as an example of the data maintained in this particular case.

Feeding progressed to a point where the child could feed herself well with a spoon. She no longer needed a high chair.

She learned how to remove her undershirt during the course of the year.

Relative to toilet training, at the beginning of the year she exhibited no successes in using the toilet, but at the end of the year data indicated that she was achieving success 25 percent of the time.

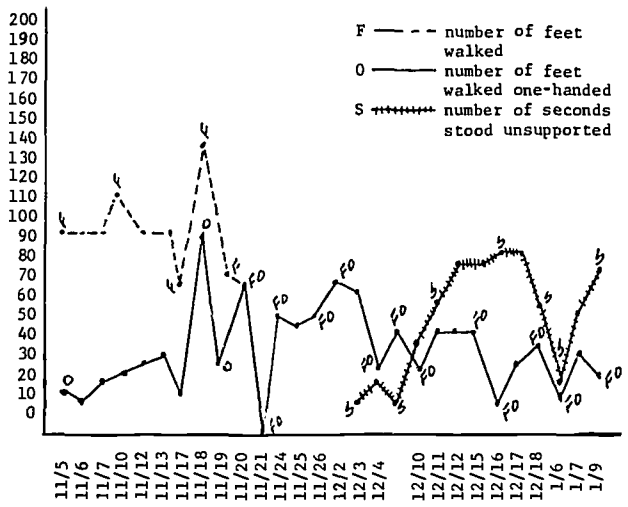
In color matching activities, matching red, yellow and blue colors, Amy advanced from an inability to match any of the colors at the beginning of the year to 78 percent correct responses at the end of the year.

When Amy first started school she exhibited much crying and demanding of attention from her mother who was a volunteer aide at that time in the school. This crying behavior was extinguished in a three–day period.

Figure V

SUPPORT WALKING

Amy



Motor development: In shape sorting tasks she was able, at the conclusion of the period, to sort the three least difficult shapes in the task.

In the pre– and post–test scores for the 1217 evaluation she scored a zero on the Parsons Language on the pre–test and a four on the post–test, a zero on the Teaching Research Motor Development Scale on the pre–test and a six on the post–test, and a 49 on the Gunzburg Progress Assessment Chart on the pre–test and a 59 on the post–test.

Brian

At the beginning of the period Brian, who is four years old with suspected hearing impairment, had exhibited no eye contact, had bizarre hand motions, excellent coordination, and cried and laughed audibly. He was not toilet trained; he fed himself, was able to work puzzles and sort shapes well. He was supposedly brain damaged from a near drowning accident and came from an erratic home environment. Brian only participated in the pre–school program from December.

Language: Brian was on Expressive Language Program No. 1. He successfully completed 25 items, although it took an average of 32.65+ presentations to reach criterion. Utilizing a reverse chain procedure developed specifically for the children in this class, Brian was taught to write the letter "N" independently.

Eye contact increased from zero, or no response, to an average duration of five seconds. It is interesting to note that with this deaf child the only eye contact that could be elicited and the only responses that could be obtained came about by placing the child in a large fiberglass saucer. The instructor would bang on the saucer and Brian would respond by hitting the saucer with a block.

The oscilliscope was used with Brian and video tape was made which showed that Brian made some deliberate sounds for the oscilliscope and repeated them.

Self–help skills: The toilet training program for Brian if examined solely on the basis of the number of successes daily, would indicate little progress over the period. However, another way of examining the data for toilet training was to examine the number of days between successes. These moved in a steady progression in this manner: 11 – 9 – 8 – 7 – 5 – 2 – 3, the latter numbers occurring at the end of the class.

An effort was made to involve the parents of this child and some self–help training at home, namely dressing and undressing skills. The parents did not cooperate in this endeavor and consequently no progress was made in this area. Brian had been a head banger at the beginning of the session, but this was extinguished quite rapidly during the program.

The 1217 evaluation data indicates a Parsons Language pre–test as zero and a post–test of four, Teaching Research Motor Development Scale pre–test of blank and post–test 29, and Gunzburg Progressive Assessment Chart pre–test of blank and post–test of 46.

Diana

Diana was in the program from December. She is age 18 months. She is a rigid cerebral palsy child who has manipulated her parents by crying. She responds to name and has specific words for food. She had no toilet training when she first entered the class and she rolled over by herself. She also has quite severe strabismus.

Language: Diana completed 25 items on Program No. 1 and 30 items on Program No. 5 of the Initial Expressive Language Program.

Diana imitates words approximately 80 percent of the time requested. At the end of the school year, she was beginning to imitate two–word sentences.

Self–help skills: Toilet training with Diana showed much progress from December when she was exhibiting no successes on the toilet, she now exhibits 41 percent success in using the toilet. It is interesting to note that when her toileting behavior was charted it took 20 days until she had her first success on the toilet, 11 days until she had her next success, and then success followed every other day. Self–help has progressed from using the walker to support walking. However, she was unable to walk forward in the walker so that step was omitted. Figure VI shows the progress made by Diana in her support walking efforts.

At the beginning of the period she was unable to eat with a spoon. She was able to exhibit that behavior at the conclusion of school.

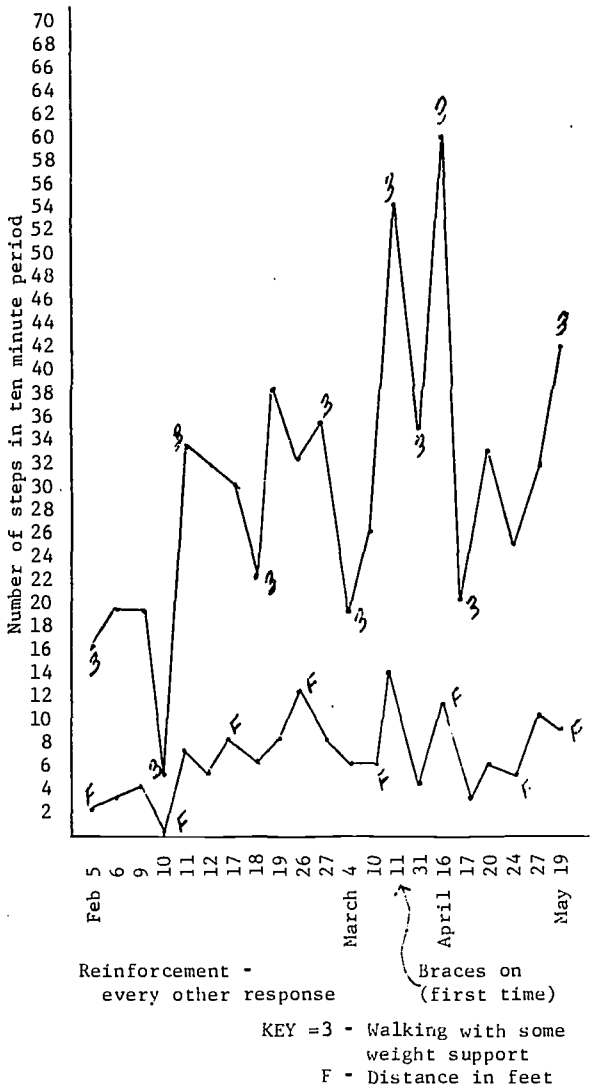
Excessive crying which characterized her behavior when school began was largely extinguished at the end of school, although it was sometimes exhibited.

In color matching, she went from no responses to 78 percent correct responses (11 out of 13). At this particular

Figure VI

SUPPORT WALKING

Diana



time when she exhibited this percentage of correct responses she no longer needed any assistance in pointing to colors. This means that in one hundred percent of the cases she made an independent choice of the color and shows 78 percent of them correct and 22 percent incorrect.

Relative to 1217 evaluation scores no pre–test was administered. She achieved a zero on the Teaching Research Motor Development Scale and eight on the Parsons Language Scale and a 37 on the Gunzburg Progress Assessment Chart.

Rosemary

Rosemary was in the program from November. When she first came into the program at age two and one–half years she was strong, had words but talked only when alone, she sat and stood with support. She had poor hygiene, no toilet training, although she did feed herself. She is a cerebral palsy child, heavy for her size, with strabismus.

Language: She reached criterion level on all items in Programs 1, 2, 3, 4 of the Initial Expressive Language Program.

Relative to language she is more outgoing in her verbalization. When she first joined the class she was extremely shy and would not talk even in front of her parents. She will now talk in class on cue.

Relative to written language, utilizing a reverse chain procedure in writing she now possessed the capability of writing the letter "y" of her name.

Self–help skills: Rosemary was being taught to support walk in the class, but her mother made a wheeled support for her and now she possess the capability of pushing the support around the room.

Relative to toilet training, she achieved two successes in January, four successes in February, 13 successes in April. During the last week of class she was 78 percent successful on the toilet.

Relative to learning her colors, she was taught specifically to match the colors red, yellow, and blue in class. Shortly thereafter she exhibited the ability to match a wide range of colors which had not been taught. Thus, we conclude that the color learning of red, yellow, and blue generalized too many different colors.

Motor development: In shape sorting she maintained an ability from one to five minutes to sort the shapes even while the number of shapes sorted progressed from one to five. Figure VII shows the data for that shape sorting exercise and points up the necessity to terminate a task once criterion has been reached. Notice the data from 1 – 21 in which the child's time increases rapidly. This can be best explained by the fact that the child knew the task at this time and was no longer challenged by it or was bored by the activity.

The scores for the 1217 evaluation series showed a zero on the Parsons pre–test and a 30 on the post–test, a one on the Teaching Research Motor Development Scale pre–test and a four on the post–test, a 50 on the Gunzburg Progress Assessment Chart pre–test and an 80 on the post–test.

Doug S.

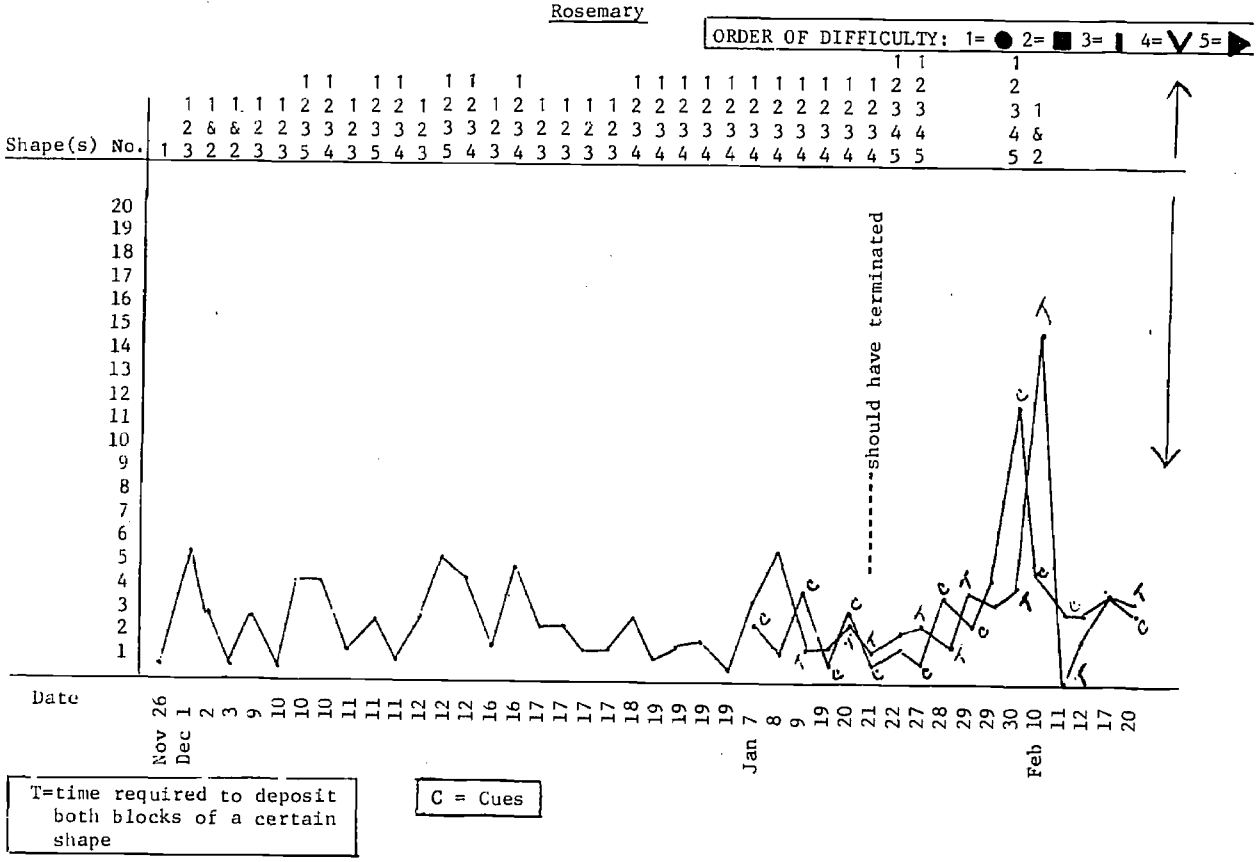
Doug S. was four years old. At the beginning of the period in September he walked with leg braces, knew some alphabet, followed directions, had some speech, but was difficult to understand. He was not toilet trained, had no dressing skills, fell often, and spilled often while eating. He knew several colors and was usually very happy and active. He was taking dilantin but had never had seizures. The child has cerebral palsy.

Language: Doug completed all the items on Language Program No. 7. He is presently working on Program No. 8

Figure VII

SHAPESORTING

Rosemary



and has completed 11 items on Program No. 9. In written language, on April 30, after 45 sessions he completed the letter "g". An explanation of this slow learning of his behavior may be poor hand coordination which will also affect some of his motor development activities in shape sorting and puzzle making.

Self–help skills: There was no significant improvements throughout the year in toilet training.

He learned how to take off his socks in approximately one week.

Relative to knowledge of colors, he progressed from a knowledge of four colors to matching, finding, and naming programs for all nine colors.

Motor development: In stage puzzles he progressed through only five stages in 22 days. Again, this may have been due to his poor hand coordination. In shape sorting he started out with all the shapes and it took him 40 sessions to reduce his time to sort the shapes from five minutes to one minute. Figure VIII shows the results of this shape sorting task.

The results of the 1217 evaluation scores are as follows: the Parsons Language Test shows a pre–test score of 37 and a post–test of 50; the Teaching Research Motor Development Scales show a pre–test of 10 and a post–test of 27; and the Gunzburg Assessment Chart shows a pre–test of 21 and a post–test of 26.

Lance

Lance is seven years old, is a minimal cerebral palsy child. His speech is nearly unintelligible, but he exhibits much verbalization. He is unable to elevate his tongue, he drools, has temper tantrums, is hyperactive, has seizures which are precipitated by fatigue or heat. He is a toe walker, and he is toilet trained. He is brain damaged which was supposedly received from child beating, although he is now in a good home environment.

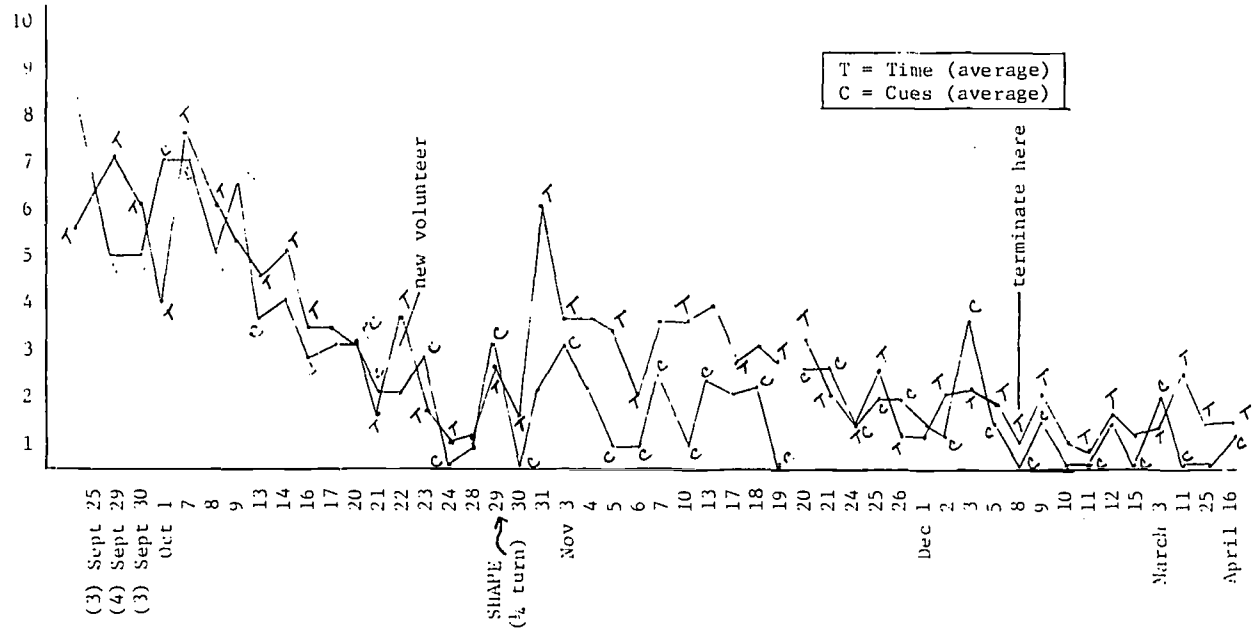
Language: Has completed the Initial Expressive Language Program No. 3 and No. 4. He was able to elevate his tongue for the "ng" sound which according to physicians was an impossible task for him. He also learned to bite his tongue to produce the "l" sound.

Lance learned to write in block capitals the letters of his first name in only 40 minutes of actual teaching time. He did not have this skill prior to this time. In teaching him

Figure VIII

SHAPESORTING

Doug



the letters of his last name, he had difficulty with the letter "y" being a "u" and the bottom a straight line down, he was able to accomplish the task. Examples of his success in writing is included as Figures IX and X.

He is able to recognize and name all alphabet letters up to letter "y". This child has shown the greatest progress of any of the children in the learning of "abc's".

Self–help skills: There has been a decrease in the number of temper tantrums.

At the beginning of the period he would not sit in a chair for any length of time, but would get up, walk around, stand on the table, crawl on the table, and exhibit what is commonly known as hyperactive behavior. Through shaping procedures he was taught to maintain his seat for periods up to 15 minutes.

Lance did not know any colors at the beginning of the period, but learned to identify and name all of them by the end of school.

Motor development: Figure XI shows the increased performance of Lance in his ball throwing ability. The chart shows his ability to throw the ball well at distances of 6 feet, 7 feet, and 8 feet. Although there is no upturning in the chart, the fact that the graph remains at a fairly stable level indicates, because of the increased distances, improved abilities. The chart demonstrates the use of shaping.

There was an immediate rapid improvement in bead stringing.

The results of the 1217 evaluations indicate the following: the pre–test score in the Parsons of 37 and a post–test score of 36. A pre–test score of 24 in the Teaching Research Motor Development Scale and a post–test score of 80. A pre–test score of 45 in the Gunzburg Progress Assessment Chart and a post–test score of 55.

Figure XI

BALL THROWING PERCENTAGES

Lance

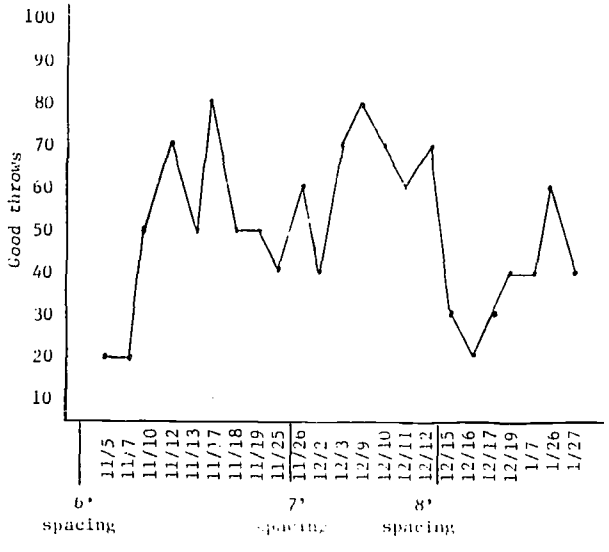
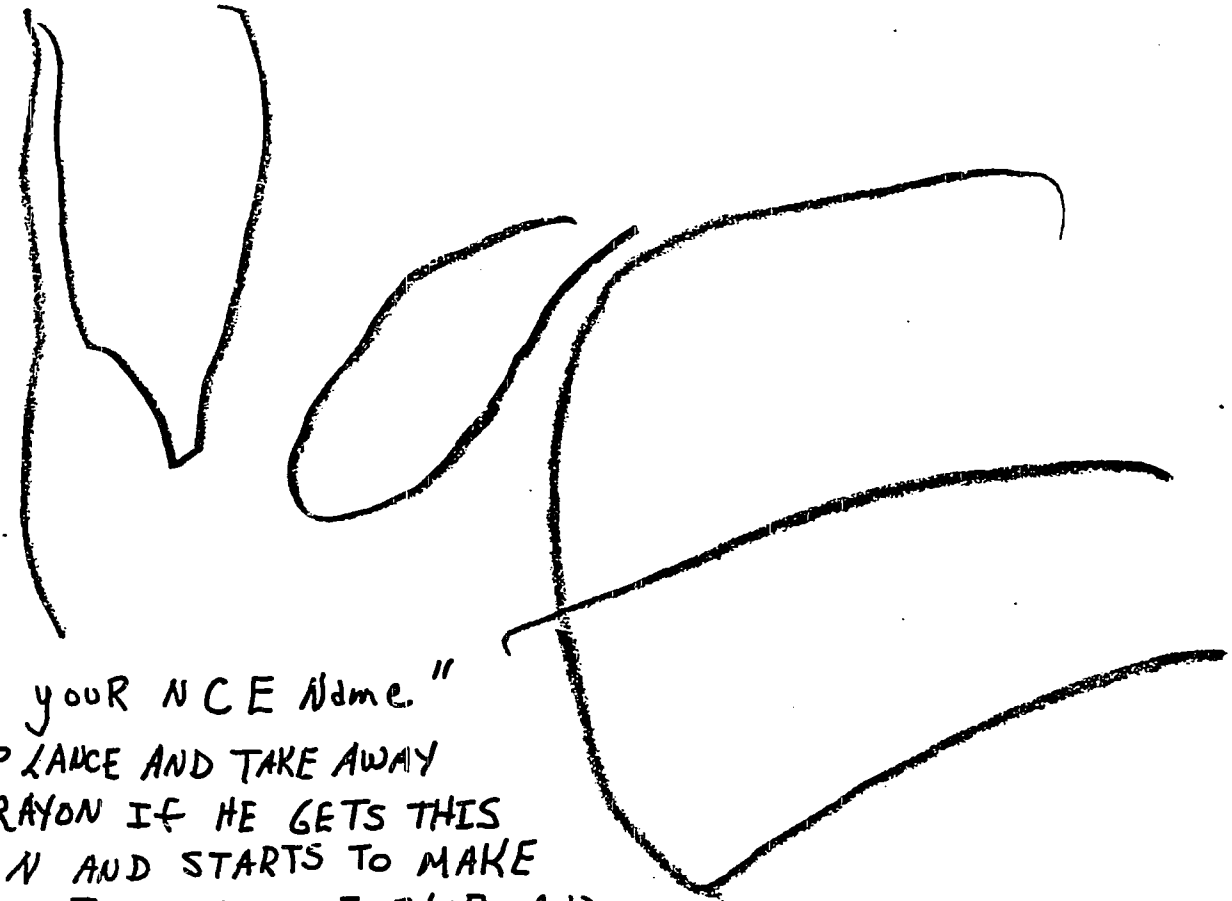


Figure IX

KNOWING THE "C" AND THE "E" LANCE TODAY LEARNED
THE "N" AND THE "NCE" SEQUENCE IN 15 MINUTES
1/16/70



Judy:
Tell LANCE: "WRITE YOUR NCE Name."
BE CAREFUL TO STOP LANCE AND TAKE AWAY
HIS PAPER AND CRAYON IF HE GETS THIS
FAR ("N") ON THE N AND STARTS TO MAKE
AN A OUT OF IT. THEY ARE SIMILAR AND
MUST BE KEPT DISTINCTLY DIFFERENT. HE ALREADY KNOWS HIS
A, SO MONDAY THE MAIN TASK WILL BE TO KEEP THE A AND THE
N SEPARATE AND ASSOCIATED WITH THE CUES.

Figure X

Doug

Doug V. is five years old. He manipulates people very well, has no speech, but responds well to directions, even two or three part directions. He is toilet trained, feeds himself, and runs flat footed. He is sullen and sulky at times and bites. He manipulates others by cute affections and seeming inabilities. He comes from an erratic home environment.

Language: He has completed all items in Language Programs No. 2, 3, 4, and has completed 21 key items on Program No. 5. Speech has progressed from only two or three words to a wide range of verbalization. He will imitate most words but will not utter sentences over two words. In an effort to teach the child recognition of the letters a, b, and c, he learned the letter ' b" immediately but was unable to learn the letters "a" and "c". In writing language skills he learned to write the letter "g" in a period of approximately two months.

Self–help skills: An active self–help program was initiated for the mother to carry out at home, but she failed to complete any of the items in the home. Instructions in putting on socks and putting on pants were the programs which were sent home.

Motor development: In stage puzzles Doug completed 20 stages in three different puzzles in 20 sessions.

Reached criterion level in shape sorting task in five sessions. The child exhibited a charateristic of hitting the shape sorting box with the blocks. This was extinguished in conjunction with his learning the shape sorting task. In bead stringing task he went from four and one–half minutes to half a minute in four sessions. The scores of the pre– and post–tests on the 1217 evaluation instruments were as follows: The pre–test on the Parsons Language Sample was 24 and the post–test was 21; the pre–test of the Teaching Research Motor Development Scale was 22, and the post–test 51; the pre–test on the Gunzburg Progress Assessment Chart was 29 and the post–test was 40.

Job

This child is five years old, extremely rigid, cerebral palsied, who is functionally blind as the result of extreme strabismus. He does not have much bodily control of any kind; he seemed to reason and used words well, with sentences limited in length by lack of breath. He tells lies and stories and has a good imagination.

Language: Job completed all items on Program No. 4 and the key items on Program No. 5 which amounted to over 100 items. He progressed from infrequent verbalizations to as many as 50 words in five minutes.

Self–help skills: Toileting behavior indicated lots of activity but no significant improvement.

Motor development: Completed only one stage in the stage puzzles. In stacking blocks he was able to stack one block on top of another. This was the formidible feat in light of his extreme physical disability. Attempts were made to have the child walk with braces and walker, but it was later determined that he suffers from a hip anomoly which prevents him from walking and will require an operation before further attempts to have him walk can be made.

The 1217 evaluation scores are 30 on the pre–test and 43 on the post–test of the Parsons Language Sample. He received no score on either the pre–test or post–test of the Teaching Research Motor Development Scale. He achieved a 58 on the pre–test of the Gunzburg Self–help Scale and a 69 on the post–test.

Third Party Evaluator's Comments:

This would seem to have been a very highly successful project and an excellent example of the types of changes that can be made in children's performance when one uses highly structured individualized programs. This approach lends itself directly to observation and data collection necessary to evaluate the objectives of the project. There are many references made throughout the body of the report which refer to the 1217 Testing Program, which was not a part of this particular project; however the data are included anyway. These results basically refer to the Parsons Language Sample, the Gunzburg Test, and Teaching Research Motor Development Scale.

On–site observation of this project during the process of the year by the third party evaluators indicated that not only were the records being kept to document the overall effectiveness of the program, but they were also being used in a systematic way to evaluate the effects of the daily teaching. This would seem to be the optimum use of data collection. Each child had a folder in which his program material was outlined and what source of information needed to be collected to determine rating movement for that particular child. This information was then charted and put on the wall for everyone to see and therefore gave direct feedback to the various instructors as to whether or not their teaching techniques were producing any change in the child.

The one area in which this project failed to meet its original objectives was in the area of parent training. The original objective indicated that parent training would be conducted and evaluated. Some parent training was conducted and programmed while the school was on–going; however, there was no attempt made to document the results of the parent's work with the child, nor was there any data to support any change in terms of the parent's behavior. This is a minor criticism in the light of the amount of change that the project was able to achieve with the children in an overall sense. However, for future projects, it would be highly recommended that if the parent training aspect is to be involved, that an outline be made at the beginning of the project which determines the type of data to be reported to document the effectiveness of the parent training program.

Title of Project: *A Training Program for the Parents of TMR Children*

Type of Project: *Multiple Handicapped*

Location: *Coos Bay*

Funding Allotted: *$1,910*

Number of Children Served: *9*

Background and Rationale:

It has recently been recognized with increasing frequency that to educate severely handicapped children requires not only an excellently structured school program, but the active cooperation of parents in the education process.

Since behavior modification techniques have been especially effective in the education of severely handicapped children, it seems logical that parents of these children should be trained in the utilization of these techniques. This project was an attempt to do so.

Objective:

The objective of this program was to teach the principles of behavior modification to parents and the teacher of preschool multiple handicapped children who were attending a school program sponsored by the Coos County Intermediate Education District.

Methodology:

The Teaching Research Division of the Oregon State System of Higher Education was contracted to provide the instruction to the parents. A one–week training session, consisting of a half–day of lecture and demonstration followed by three individual sessions with the parent and the child was decided upon. This one–week session was to be followed at two–week intervals by a conference between staff from Teaching Research and the parent and the child to actually observe the parent working with the child and to assist in the programs which had been developed for that particular child.

The half–way lecture and demonstration consisted of an explanation of the principles of behavior modification, utilizing simplified language as developed by the Teaching Research Division with parents at the Corvallis School District. This simplified language essentially utilizes the terms of cue, behavior, and reinforcement. Chaining of behaviors, analysis of behaviors and the utilization of reinforcement in the natural environment were stressed. Demonstration was conducted by means of video tape.

Following this initial lecture/demonstration session, three sessions during the first week were scheduled with each of the parents. At the first session the parent and the consultant from Teaching Research determined what behavior the parent wished to teach the child or, in the case of deviant behavior, what deviant behavior the parent wished to extinguish. (Emphasis was placed on the positive approach. The elimination of behavioral problems was subjugated to the acquisition of learning skills, although it was necessary in at least one case to devote full energies to the elimination of behavior problems.)

After the parent and the consultant had determined a behavior that would be taught to the child, the consultant prescribed a program for the parent which she was to follow. The subsequent two sessions during that first week saw the parent working with the child on the prescribed program in front of video cameras. Each session was video taped and played back to the parent and critiqued by the consultant. Modifications in the program and the parent's performance were made as deemed necessary and as the data indicated during the first week.

After the first week's instructions, parents were scheduled every two weeks to return with their child to the school to interact with the consultant and to demonstrate their performance with the child. Essentially, the parent was asked to conduct the program with the child before video cameras with the session being taped. Once again the session was played back to the parents and a critique of their performance was conducted. Additional programs were prescribed in many instances and modifications of the existing programs were made based upon data which were kept by the parent and examined by the consultant.

At the conclusion of the third two–week session, programs were given to the parent to allow them to continue for the remainder of the summer until the teacher could take over the roll of the consultant in the fall and begin to prescribe homework sessions which would dovetail with instruction in the school.

The teacher was present at all sessions of instruction and all interactions with the parents, so that she was aware of all prescriptions which were given to the parent and was capable of actually assisting the parent in many instances in conducting the program and advising on how it should be conducted.

Evaluation Plan:

A pre– and post–test of Behavior Modification Principles was to be administered to all parents. In addition, individual records of children were to be maintained by parents as an indication of changes they were able to produce in their child's behavior.

Results:

Eight children's parents participated in the initial lecture and the three follow–up sessions during the first week. Of these eight children's parents, six completed the three further follow–up sessions which were conducted at

intervals of two weeks. Two of the children were being cared for by one parent, who attended one of the bi–weekly follow–up sessions but failed to keep her appointment for the remaining two. Information received from other parents indicated that she seemed pleased with the program but was unable to keep her appointments because of more pressing commitments.

A ninth child was involved in the TMR program whose mother attended the last part of the lecture on the first day, and then brought her child back to one follow–up session. A program was prescribed, appointment made, but the mother failed to return. It should be noted that this particular child's attendance during the school year was extremely erratic and that the mother's cooperation with the teacher was likewise erratic. Her performance during this session, therefore, seemed to follow a pattern of behavior which was well established relative to her child and schooling.

A tenth child's parents did not attend the initial lecture, although they did participate fully in all follow–up sessions.

Thus, seven of the children's parents attended all of the practical exercises while two of the children's parents did not. One set of parents missed the inital lecture. We can conclude, therefore, that 70 percent of the parents completed the entire course. It is estimated that 90 percent of the parents completed enough of the course to gleen some benefit from the presentation of the behavior modification theory and its practical application.

TABLE I

Results of Pre-Test and Post-Test on Behavior Modification Theory

Parent No.	Pre-Test	Post-Test	Gain Score
1	13	32	19
2	3	12	9
3	7	26	19
4	0	12	12
5	3	24	21
6	19	27	6
7	7	NA	--
8	9	NA	--
9	NA	18	--
10	NA	NA	--

NA = Not Administered

A pre– and post–test evaluation model was utilized to test the parents knowledge of behavior modification theory. The results of that test are shown in Table I. It should be noted that there are only six sets of complete data. This is explained by the fact that with child 10 the mother only attended the last half of the lecture and did not complete the follow–up session. She, therefore, took neither the pre–test nor the post–test. With child 7 and 8 the mother completed the pre–test but did not take the post–test since these were the two children being cared for by one parent who did not attend the last two follow–up sessions. In the case of child 9, the parents missed the inital lecture session and thus the pre–test, although they did complete the post–test.

Individual results for children and the progress they made are noted below:

Student 1 – This student had little language although he did utter some sounds. The primary behavior which the mother wanted the child to learn was how to speak. Because of his poor manifestation of language, he was placed on the Teaching Research Expressive Language Program No. 1, which is the imitation of gross motor commands. On June 12 he responded to such movements as raising arms, sitting down, and standing up. By June 26 he had proceeded through three quarters of Program No. 1 and was on Program No. 2 and certain sounds were being uttered around the home which the mother was encouraged to reinforce. By the end of the program, July 24, the child was making the sounds b, m, n, p, d, i, o, ow. The mother was advised that for the rest of the summer she was to reinforce these sounds and they were to be utilized with words that sounded like them. She was to make every effort to extend those sounds around the home so as to add initial consonants to vowel sounds so as to make words which the child had to utter before he was given something, such as combining the p and the i to form the word pie. Progress of this child and the utilization of sounds around the home was considered to be quite significant.

Student 2 – The parent of this student decided that she wanted the child to be able to write the names of the children in school, to be able to tie his own shoes and to learn to count to ten. The latter task proved no major obstacle since the child could already count all numbers except five. He was including the five readily by the end of the period.

Relative to shoe tying, he had by the end of the period through reverse chaining procedures progressed to where he could tie his shoe, all except the initial two stages in a 14 stage process.

This child was also placed on Program No. 9 of the Teaching Research Expressive Language Program and was required to respond in sentences for things he wanted around the house. The mother indicated that much success was achieved in this area. By the end of the period he was able to write all of the students' names and could recognize them on flash cards. A system of flash cards placed on familiar objects around the house was inaugurated to commence a reading program for him.

Student 3 – Student No. 3 was quite severely handicapped. Application has been made by the parent for admission to Fairview Hospital and Training Center. The mother was primarily concerned with toilet training and

with the child developing some language. Because of the severe retarded state of the child Language Program No. 1, Gross Motor Imitation of the Teaching Research Expressive Language Program, was inaugurated. A toilet training program was also started. At the conclusion of the program little progress was noted in toilet training. The mother maintained few records for the language program, although she certainly demonstrated that she understood the principles of behavior modification.

Student 4 – The mother was primarily interested in developing language and increasing the child's dressing skills. Consequently, Language Program No. 6 and No. 3 of the Teaching Research Expressive Language Program were inaugurated with the child. The mother was taught how to teach him how to put on his pants. After two weeks he had learned to put on his pants, and his next task was to learn how to take off his socks. By the conclusion of the program he had learned to take off his socks, had finished Language Program No. 3, was on programs No. 4, No. 6, and No. 7, and a system of requiring the child to utilize words in the natural environment of the home was inaugurated. The child's verbalization increased remarkably during the period and the mother learned how to reinforce as part of the every day living behavior in the home.

Student 5 – The mother maintained that this child had no problems except language. Consequently, the only program initiated with the child was the Teaching Research Expressive Language Program. Programs No. 5 and No. 7 were inaugurated with the child. There was a great deal of dispute between the mother and father in the ways in which to interact with the child. This became evident at the first two–week session. Consequently, the mother and father were scheduled separately. The child began work in Language Programs No. 3 and No. 7. In addition, the mother, after a few weeks, inaugurated a system of making a list of words which the child did not know in Program No. 7 and added these to a list of familiar objectives around the house. The child seemed to be making excellent progress in naming these objectives around the home. It was determined that at the conclusion of the program articulation was the child's main problem. He was talking in sentences and the mother was beginning a reading program with the child by labeling objects around the house so he could begin recognizing the words.

Student 6 – This child was a severe behavior problem who was also blind in addition to being retarded. The Oregon School for the Blind had expelled the child from the school on the grounds that her behavior was so bad they could not cope with it. The mother desired that the child learn how to dress, but before that task could be undertaken tantrum behavior had to be controlled, and the child had to learn to respond to simple directions.

A program was inaugurated with the mother, the father, and the four sisters in which tantrum behavior was immediately followed by total silence in the house to the extent of shutting off television and radios and thus putting the child in a total time out situation. By the conclusion of the program, tantrum behavior had not been totally extinquished, although it had been markedly reduced to where tantrums occurred only once or twice a day, whereas in the beginning of the program they were occurring as frequently as seven to ten times a day. The child was responding by taking objects from a table, bringing them to the mother, and upon direction returning them to the table. Reinforcement was music and social praise. The two older sisters of the child were instructed in how to help train their sister to follow directions in the home and were involved in the teaching process.

Student 7 – Child No. 7 was placed on Language Program No. 7 and No. 3 of the Teaching Research Expressive Language Program. She was also learning to button and unbutton. No progress can be reported beyond that of the first week since this is one of the children who was not brought back to the program after the first session. During the first two–week session that the child did attend, she was having great difficulty buttoning and unbuttoning and the program was modified to use a larger button. No notable progress had been made in the language program.

Student 8 – The mother wanted the child to learn how to write his name and to improve his language. The mother wanted him to be able to spend time out of doors around their house without running away. This child would wander great distances from the home to the extent where massive searches would have to be organized to locate him.

A program was inaugurated to gradually extend his time out of doors and systematically reinforcing his behavior of staying around the house. Within two weeks the mother was satisfied that his running away behavior had been cured. This child and his mother only returned to the session once, and the mother indicated that she felt that language had improved tremendously because she was reinforcing appropriate responses, not only in the structured language situation provided by the Expressive Language Program, but also to the child's verbalizations around the home. The mother had generalized the reinforcing of proper behavior around the house to the extent that she was even awarding jelly beans for the child making his bed.

Student 9 – This child was to learn how to dress. He also required a toilet training program and was placed on Teaching Research Expressive Language programs No. 5 and No. 7. At the conclusion of the period he had learned to dress himself. Although he is still on programs No. 5 and No. 7, he had significantly improved in his language abilities and was responding extremely well to his father when he presented cue cards. Toilet training, however, showed no significant improvement during the period.

Third Party Evaluator's Comments:

This project had only one objective and that was to teach the principles of behavior modification to a group of parents. Knowledge was defined as a score on a test that

was developed to cover the basic areas of instruction. This objective would seem to have been satisfactorily achieved by those parents who were able to take both the pre– and post–tests. The gain scores as a result of the pre– and post–testing range from 6 to 21 with a mean gain score of 14. No test of significance was applied in light of the fact that each of the parents improved considerably on the basis of their post–test.

Another indirect measure of parent training and effectiveness is given in the form of child performance on home–based programs. Each of the programs have been documented in the body of this report and it would indicate that in all cases some behavioral change was noted. It is important to recognize that this program took place over a short period of time and that extreme behavioral changes would not be expected in all areas of programming. However, the fact that some behavioral changes did occur in those programs that the parents selected as important would seem to indicate a change of behavior that has been concerning the parent for a considerable amount of time. Therefore, it might be concluded that any change that occurred would be a result of a rather drastic change in the parent's behavior.

This project, while in operation, had obvious successes; however, the true impact of such a project can only be determined during the following school year when the teacher is left with her own devices and does not have the help of consultants. It would seem rather important to know if the parents and the teacher were able to maintain their communication and continue in home–training activities that were begun in this project.

Project Title: *Oregon Sights and Sounds*
Type of Project: *Educable Mentally Retarded*
Location: *Lakeview*
Funding Allotted: *$1,981.00*
Number of Children Served: *9*

Background and Rationale:

This project was designed to help mentally retarded children, living in an isolated rural area, to become more aware of the cultural aspects of society. This awareness would be developed by exposing the children to a variety of cultural and environmental features not found in their normal surroundings.

These children, living in an isolated area, have a limited exposure to the broad cultural features of society. It was believed that the exposure to a variety of cultural and environmental circumstances would be a means by which to stimulate their learning and developmental process.

Objectives:

1. To give EMR's better understanding of the world outside their rural community.
2. To improve one's positive self–image through music and art.
3. To develop better rhythm and improve coordination of the EMR's.
4. To provide an opportunity for EMR's to participate in various recreational and leisure time activities.
5. To improve the EMR's self–concept through participation in out of school activities.
6. To develop an art program for these EMR children which will reflect the experiences they had as they interacted with their new environment.
7. To improve the self–concept of the children in this project through contact with people employed in various occupations.

Methodology:

This project was conducted from June 20, 1970 to June 27, 1970. Nine children were involved in the project. During the time the group was away from Lakeview, they lived on the campus of Oregon College of Education, Monmouth. The following outline describes the activities during the seven days of the project.

June 20 – Arrived in Portland by air. Drove to Monmouth. Returned to Portland to attend a circus. Returned to Monmouth.

June 21 – Drove to Bonneville Dam via Portland and Multnomah Falls. Toured the dam facilities then returned to Monmouth via Mt. Hood Loop road.

June 22 – Toured OCE Campus at Monmouth. Participated in art, discussion and recreational activities.

June 23 – Toured Salem and the state capitol building. Also toured the Bush Barn Art Center and Bush House.

June 24 – Toured the Portland Zoo and OMSI. Had dinner in a Portland restaurant.

June 25 – Drove to the coast via Eugene and Florence. Toured the Sea Lion Caves and Oregon State University's Marine Research Center at Newport. Ate dinner in a Salem restaurant.

June 26 – Group was video–taped at OCE. Session was described as not successful since children did very little talking.

June 27 – Drove to Portland and visited the Lloyd Center. Ate lunch in a Portland restaurant and went to the airport to observe airport activities. Left Portland Airport via air to return home.

Results:

Results of this project were completely subjective in nature. These subjective data were reported in various ways. One set of reports contained information concerning what the children saw on each day of their trip. Some information describing the childrens' reactions to the various locations visited was also provided.

A second set of reports contained information concerning the type of discussions the children had concerning the facets of their trip. Comments from the staff were also included. This type of information was provided for only four of the days of the project.

An attempt was made to keep an anecdotal record of the trip but as was reported in the final report,

> "Due to the fact that the children involved had such a limited knowledge of the area being toured, it was not possible to keep minute, detailed records of each individual's actions and emotional attitudes in relation to their new experience. Many did not observe certain things until it had been pointed out to them."

Finally a section entitled *What the Students Gained* was presented. This section contained information on what the project director felt each child had gained from the trip. These data were provided for eight subjects. The following six sentences represent the opening statement for six of the eight subjects.

1. "This boy was docile during the entire trip and said very few words.'

2. "This lad did not seem to retain a great deal."
3. "This boy did not gain as much as did some of the other students. He frequently was thinking of going home."
4. "It was very difficult to assess how much this boy gained."
5. "It is not known just how much this individual gained as she has been in this area numerous times on other trips."
6. 'We find it impossible to assess this individual under present conditions.'

In summary, the results indicate that the children saw a variety of things on their trip. They were given an opportunity to view a wide variety of the environmental features found in Oregon. The staff of the project who accompanied the children described the various sights seen on the trip. However, the results seem to indicate that the children retained very little of the information provided on the trip. It also appears that the staff had some difficulty actually assessing what the children learned.

Third Party Evaluator's Comments:

The children involved in the project were able to see many cultural and environmental features of Oregon that they could not have viewed in the Lakeview area. Unfortunately, due to the lack of evaluative data, it was difficult to assess the learning that may have taken place.

As stated in the project, evaluation of the program was to have been based on such features as improving basic music skills, progress in music interest and appreciation, progress in auditory and visual discrimination and evaluation of art activities. No objective data was provided for any of these features and a minimal amount of subjective data was reported in these areas. The evaluation plan also called for the administration of a sociogram on a pre– and post– basis but no data were provided that indicated this was done. It was also reported that anecdotal records would be kept on each child in the project but as was stated earlier, the project staff was unable to keep these records.

Prior to the initiation of this project, the third party evaluators suggested to the project staff that they use a tape recorder to gather data on the group's reactions to the various parts of their trip. This was not done because the children would not respond to the recorder. An attempt was made to video–tape the children while they were to be discussing the features of their trip. This was done on the next to the last day of their visit, but the group would not respond at this time either.

Because of the difficulty the project staff had in obtaining the necessary evaluation data, and because it must be assumed that the project staff made an earnest effort to do so, the funding of this type of project in the future must be seriously questioned. With the plethora of worthwhile projects unable to be conducted because of lack of money, only those which are capable of demonstrating value to students should be funded.

Project Title: *A Pre–School for Trainable Mentally Retarded Children*

Type of Project: *Trainable Mentally Retarded*

Location: *Emily School, Our Lady of Providence Child Center, Portland*

Funding Allotted: *$1,278.25*

Number of Children Served: *16*

Background and Rationale:

The evidence is generally becoming overwhelming that pre–school education of retarded children enhances their abilities to cope with the world in which they live. This pre–school was designed to assist children in the development of self–help skills.

Objective:

To develop self–help skills for the children attending the pre–school.

Methodology:

Eleven children were served on a regular basis. Five children were served for shorter periods of time.

The project began on July 6 and ended on August 21. The children followed a daily school routine beginning at 9 a.m. and ending at approximately 2:30 p.m. Monday through Friday for the seven–week period.

The teacher was trained in Montessori methods. Teacher aides were provided by the Providence Child Center's Foster Grandparent Program. The children were exposed to a large amount of sensory stimulation utilizing Montessori equipment. The major focus of the program was to allow the children to gain proficiency in self–help skill areas that would allow them to make an easier transition to the regular school year.

Evaluation Plan:

Progress Assessment Charts, Forms 1 and 2, were completed on a pre– and a post–test basis so as to record changes in the acquisition of self–help skills. One–half inch Sony video tapes were to be taken at the beginning and end of the program showing the child performing similar tasks so as to demonstrate the improvement of the children in the seven–week period.

Opinions of the teachers and aides were to be submitted in addition to the above data.

Results:

The pre– and post–test results on the Progress Assessment Chart are contained in Table I. This table shows the number of steps gained by each child during the seven–week period in the three areas of self–help, communication, and socialization. The major gains made by the children were in the area of self–help. This is understandable for this was the primary objective of the program – to increase the self–help skills of the children.

The types of gains made by each child are shown in Table II in summary form. An examination of Table II shows that four of the children made significant gains in the area of toilet training. Three of the children made gains in hygiene habits, namely washing of themselves. Three of the children showed progress in dressing, and specifically in the very difficult tasks of unbuttoning and buttoning. These latter gains are certainly understandable in light of the emphasis given to these tasks in Montessori methodology.

TABLE I
Results Achieved on Progress Assessment Chart

Student	Self-Help	Communication	Socialization	Total
1	+2			+2
2	+2			+2
3			+1	+1
4	+2		+1	+3
5	+3			+3
6		+1		+1
7	+1			+1
8	+1			+1
9	+3			+3
10	+1			+1
11	+1			+1

The gains shown in Table I and II must be considered in light of the inherent weakness of the Progress Assessment Chart. One must realize that the skills listed are usually complex tasks that will have required the acquisition of a

TABLE II
Summary of Gains Achieved on Progress Assessment Chart

Student	Gains
1	Bowel movements regular and climbs on toilet seat.
2	Washes hands: unbuttons accessible buttons.
3	Sings, dances to music and plays records.
4	Fastens and adjusts his clothing and dresses in the morning with little supervision. Plays cooperatively with others.
5	Serves himself and eats without requiring help: pours liquids from pot.
6	Can copy circles.
7	Washes himself adequately and completely without supervision.
8	Unbuttons accessible buttons.
9	Uses toilet when placed on it; has established some toilet regularity: bladder control during the day but has to go often.
10	Goes to toilet regularly without asking.
11	Attends to toilet needs without help.

number of more simple tasks. Thus a change of two or three steps on the Progress Assessment Chart indicates an acquisition of anywhere from five to fifteen less complex tasks.

Video taping was recorded of all of the chidren during the seven–week period. In only eight cases, however, were both pre– and post–taping sessions conducted. The unavailability of children did not allow post–tests to be conducted in two cases and pre–tests conducted in two other cases. The taping primarily consisted of the child's performing on a wooden frame. It is generally difficult to perceive significant differences on the tape, although in two instances a facility of movement by the child is distinctly noted.

In the opinion of the teacher and aides, the children improved. The teacher believed, as did the consultants of the project, that the children benefited from this summer experience.

Third Party Evaluator's Comments:

It is generally recognized that a seven–week period is totally inadequate to affect major changes in a pre–school TMR program. However, one must be impressed with the changes that were achieved in this brief period of time with the eleven children reported upon. In nine of the eleven cases the children showed gains of at least one step in the self–help skill area as reported on the Progress Assessment Chart. In the two instances where no progress was shown in the self–help area, progress was shown in either the communication or socialization areas. In five cases children showed gains of two or three step changes in the Progress Assessment Chart. These are considered to be sizable changes to be accomplished with this type of population in a seven–week period.

Upon visiting the project, the third party evaluator was impressed with the performance of the children in this pre–school setting. The training, which these children were receiving in socialization habits and which are not reflected on the Progress Assessment Chart, could serve as a model to any other pre–school. The children's performance during lunch period was exemplary, and it is unfortunate that these performances cannot be documented with "hard" data. However, video tapes of the performance of these pre–school children are available and would be worthwhile for the perusal by others engaged in pre–school education of multiple handicapped children.

The utilization of a consultant in a project such as this demonstrates the value of such a practice. The consultant arranged for and supervised all evaluation of the project and was especially helpful in the successful conduct of the project.

Project Title: *Independent Living Skills Workshop for the Blind*

Type of Project: *Visually Handicapped*

Location: *Eugene*

Funding Allotted: *$2,400*

Number of Children Served: *9*

Background and Rationale:

The existing special education program for visually handicapped children in Eugene Public Schools is purely academic, with no special self–care or home skills being taught during the regular school year. Limited orientation and mobility instruction is provided for the older students. Administrators and teachers of the district felt that these children needed assessment, training, and development in group living, self–care, homemaking skills, orientation and mobility training and other experiences in unfamiliar situations. In order to provide for these needs, these children were given a nine day "semi–camping" experience on the Oregon Coast.

It was also felt that this experience would allow the teachers to become better acquainted with the children in a non–academic situation and it would also allow the parents to become more aware of their child's potential for independence.

Objectives:

1. To develop and evaluate the living skills of visually handicapped students in an unfamiliar environment.
2. To develop increased mutual confidence and trust in teachers, pupils and parents.
3. To help parents become more aware of their child's ability.

Methodology:

This project was conducted over a 16 day period in July, 1970. Prior to the camping experience on the Coast, three days were spent in Eugene by the staff and students preparing for the trip. Nine days were spent in a "semi–camping" situation in a house, a trailer and a tent on the Oregon Coast. The remaining days were spent in follow–up with parents.

The staff included four teachers, and the nine students (CA 9 to 13) included three girls and six boys. One of the students was blind while all of the others had some vision.

While at the coast training and practice were given in grooming, care of rooms and sleeping quarters, meal preparation, eating skills and K.P. Both cooperative group activities and independent activities were arranged for the children. Teachers and students made daily evaluations of these activities.

The following is an outline of the daily schedule:

Daily Schedule

7:00 - 7:30	Dressing and morning preparation for staff and breakfast crew.
7:30 - 8:00	Breakfast preparation (Group I) Dressing and morning preparation for others.
8:00 - 8:30	Breakfast
8:30 - 9:00	Group II clean tables and wash dishes. Group III clean floors and put house in order Group I make beds and organize clothing, etc.
9:00 - 11:00	Activities - all groups (scheduled)
11:00 - 12:00	Lunch preparation - Group II Free activities for groups I & III
12:00 - 12:30	Lunch
12:30 - 1:00	Group III - tables and dishes
1:00 - 4:30	Activities - scheduled
4:30 - 5:30	Group III - prepare supper - Group I & II check individual charts
5:30 - 6:00	Supper - discuss next day's program
6:00 - 6:30	Group I wash tables and dishes Group II prepare entertainment Group III check individual charts
6:30 - 8:30	Games, group discussions, role playing, entertainment
8:30 - 9:00	Prepare for bed
9:30	Lights out - staff evaluations

In addition to the above activities the following experiences were also provided: visit to the OSU Marine Biology Museum at Newport, visit to the Visitor's Center at Cape Perpetua, beach camping on reefs and sand beaches, fishing in Yachats River, swimming and picnics at Sutton and Cleowox Lakes, and general recreational activities on the beach.

At the conclusion of the nine day session on the coast the director of the project visited each student and his parents in their home. At this time the student's evaluation was discussed and newly acquired skills were demonstrated to the parents.

Evaluation Plan:

Evaluation was conducted by the staff using a check list designed to measure the skills taught during the project. Pre– and post–test measures on the check list using a Likert Scale (1–5), were used to assess each child's performance on the skills taught. The staff made daily observations for planning and from these observations a narrative evaluation was prepared. Anecdotal records were kept by both the staff and the students. A final evaluation was done by the project director in the home of each student during the week following the camping experiences. This evaluation covered both the carry–over by the child and the attitude of the parent.

Results:

All children in the project showed improvement in the skills taught as measured on the check list using the Likert Scale on a pre– post–test basis. The following are the check lists and summarized narrative descriptions of each child's progress in the project.

Student 1: Student 1 showed improvement in all skills which had n t been previously developed. She worked and played well with all members of the group and she was frequently in the kitchen doing extra preparation for meals. Her parents expressed appreciation for the camping experience and indicated that student 1 now offered to wash dishes at home.

SKILLS FOR SUMMER WORKSHOP 1970

Student 1

Likert Scale
1. None
2. Poorly
3. Average
4. Above Average
5. Excellent

	Pre-test	Post-test
GROOMING AND DRESSING		
Dressing Self	3	5
Grooming	3	5
SOCIAL GRACES		
Reporting on schedule (on time)	4	5
Following directions	4	5
Working with others	3	5
Carrying on a conversation with someone	4	4
Playing games or sharing some activity	3	4
Used please and thank you	4	4
SPECIFIC TABLE MANNERS		
Finding place	4	5
Waiting for others	4	5
Cutting meat	4	4
Sharing with others	3	5
Appropriate table conversation	4	4
Requesting and accepting service	3	4
Good posture	3	4
HOMEMAKING		
Folding clothes	3	5
Keeping personal things in order	3	5
Making bed	4	5
Setting table	3	5
Clearing table	3	4
Washing dishes	3	5
Drying dishes	3	4
Cutting with scissors	2	4
Hammering a nail	1	4
Pouring (filling glasses)	4	4

Student 2: Student 2, a leader in many activities, had better vision than the other students and showed improvement in all skills in which he took an interest. He had some indifference to keeping his clothing and other properties in order. He got along well with others, was prompt and efficient in cooperative chores and worked well for verbal praise. His mother expressed appreciation for the camping experience.

SKILLS FOR SUMMER WORKSHOP 1970

Student 2

Likert Scale
1. None
2. Poorly
3. Average
4. Above Average
5. Excellent

	Pre-test	Post-test
GROOMING AND DRESSING		
Dressing Self	3	4
Grooming	3	4
SOCIAL GRACES		
Reporting on schedule (on time)	3	4
Following directions	3	4
Working with others	3	4
Carrying on a conversation with someone	3	5
Playing games or sharing some activity	3+	4
Used please and thank you	3+	4
SPECIFIC TABLE MANNERS		
Finding place	3	5
Waiting for others	3	4
Cutting meat	3	4
Sharing with others	4	4
Appropriate table conversation	3	3
Requesting and accepting service	3	4
Good posture	3	4
HOMEMAKING		
Folding clothes	3	3
Keeping personal things in order	3	3+
Making bed	3	4
Setting table	3	4
Clearing table	3	4
Washing dishes	3	4
Drying dishes	3	4
Cutting with scissors	3	3
Hammering a nail	3	3+
Pouring (filling glasses)	3	4

Student 3: Student 3, a student at the Oregon School for the Blind, lives in Eugene and attended the camp by special permission. She was friendly and eager to join the group but was periodically tempermental and difficult to handle. She showed little improvement in the skills taught. Improved use of vision was noted. There was no indication of a chance for home activity.

SKILLS FOR SUMMER WORKSHOP 1970

Student 3

Likert Scale
1. None
2. Poorly
3. Average
4. Above Average
5. Excellent

	Pre-test	Post-test
GROOMING AND DRESSING		
Dressing Self	3	3
Grooming	2	2
SOCIAL GRACES		
Reporting on schedule (on time)	2	3
Following directions	2	3-
Working with others	2	3
Carrying on a conversation with someone	3	3
Playing games or sharing some activity	3	3
Used please and thank you	2	3
SPECIFIC TABLE MANNERS		
Finding place	3	4
Waiting for others	2	3
Cutting meat	2	3
Sharing with others	3	3
Appropriate table conversation	3	3
Requesting and accepting service	2	3
Good posture	3	3
HOMEMAKING		
Folding clothes	3	2
Keeping personal things in order	3	3
Making bed	3	3
Setting table	2	3
Clearing table	2	2
Washing dishes	2	2
Drying dishes	2	2
Cutting with scissors	1	2
Hammering a nail	1	2
Pouring (filling glasses)	2	3

Student 4: Student 4 enjoyed all phases of the program and worked well with others. He learned quickly to adjust to new situations. His family visited the camp and expressed appreciation for the experience.

SKILLS FOR SUMMER WORKSHOP 1970

Student 4

Likert Scale
1. None
2. Poorly
3. Average
4. Above Average
5. Excellent

	Pre-test	Post-test
GROOMING AND DRESSING		
Dressing Self	4	5
Grooming	3	4
SOCIAL GRACES		
Reporting on schedule (on time)	4	5
Following directions	4	5
Working with others	4	5
Carrying on a conversation with someone	4	5
Playing games or sharing some activity	4	5
Used please and thank you	3	5
SPECIFIC TABLE MANNERS		
Finding place	3	5
Waiting for others	3	5
Cutting meat	3	4
Sharing with others	4	5
Appropriate table conversation	4	5
Requesting and accepting service	4	5
Good posture	4	5
HOMEMAKING		
Folding clothes	3	4
Keeping personal things in order	3	4
Making bed	3	5
Setting table	3	4
Clearing table	4	4
Washing dishes	3	5
Drying dishes	4	5
Cutting with scissors	3	4
Hammering a nail	3	4
Pouring (filling glasses)	3	5

Student 5: Student 5 worked well with the group and enjoyed all the activities. She learned quickly, oriented herself well to the house and moved around with only minor collisions. She showed interest in biological specimens, beach combing, playing in the sand, but she avoided the cold water. Her parents visited the camp and expressed a desire to help in the home in any way they could.

SKILLS FOR SUMMER WORKSHOP 1970

Student 5

Likert Scale
1. None
2. Poorly
3. Average
4. Above Average
5. Excellent

	Pre-test	Post-test
GROOMING AND DRESSING		
Dressing Self	3	4+
Grooming	2	5
SOCIAL GRACES		
Reporting on schedule (on time)	3	4+
Following directions	3	5
Working with others	3	5
Carrying on a conversation with someone	4	5
Playing games or sharing some activity	3	5
Used please and thank you	4	5
SPECIFIC TABLE MANNERS		
Finding place	3	4+
Waiting for others	3	4+
Cutting meat	2	3+
Sharing with others	3	5
Appropriate table conversation	2	4+
Requesting and accepting service	3	4+
Good posture	3	4+
HOMEMAKING		
Folding clothes	3	4+
Keeping personal things in order	3	4+
Making bed	4	4+
Setting table	3	4+
Clearing table	3	4+
Washing dishes	3	4+
Drying dishes	3	4+
Cutting with scissors	3	4
Hammering a nail	2	4
Pouring (filling glasses)	3	4+

Student 6: Student 6 had a great deal of energy and was eager to participate in all activities. He adjusted to the group well and showed improvement in all skills practiced. He volunteered for extra duties. His mother reported he enjoyed all phases of the experience.

SKILLS FOR SUMMER WORKSHOP 1970

Student 6

Likert Scale
1. None
2. Poorly
3. Average
4. Above Average
5. Excellent

	Pre-test	Post-test
GROOMING AND DRESSING		
Dressing Self	3	4
Grooming	3	4
SOCIAL GRACES		
Reporting on schedule (on time)	3	4
Following directions	3	4
Working with others	4	5
Carrying on a conversation with someone	3	4
Playing games or sharing some activity	4	5
Used please and thank you	3	5
SPECIFIC TABLE MANNERS		
Finding place	3	5
Waiting for others	3	4
Cutting meat	3	4
Sharing with others	3	5
Appropriate table conversation	4	4
Requesting and accepting service	3	4
Good posture	3	4
HOMEMAKING		
Folding clothes	2	4
Keeping personal things in order	3	5
Making bed	3	5
Setting table	1	5
Clearing table	1	4
Washing dishes	1	3
Drying dishes	1	3
Cutting with scissors	1	4
Hammering a nail	1	5
Pouring (filling glasses)	3	4

Student 7: Student 7 willingly cooperated in all tasks and activities. He showed improvement in all skills practiced. He enjoyed playing in the sand and cold water and was entering group ball games. He frequently volunteered for extra chores and took pride in keeping personal things in order. His parents were most appreciative of the camping experience.

SKILLS FOR SUMMER WORKSHOP 1970

Student 7

Likert Scale
1. None
2. Poorly
3. Average
4. Above Average
5. Excellent

	Pre-test	Post-test
GROOMING AND DRESSING		
Dressing Self	3	4+
Grooming	3	4+
SOCIAL GRACES		
Reporting on schedule (on time)	3	5
Following directions	3	5
Working with others	3	5
Carrying on a conversation with someone	3	5
Playing games or sharing some activity	3	4+
Used please and thank you	3	4+
SPECIFIC TABLE MANNERS		
Finding place	3	4+
Waiting for others	3	5
Cutting meat	3	4
Sharing with others	3	4+
Appropriate table conversation	3	4+
Requesting and accepting service	3	4+
Good posture	2	4+
HOMEMAKING		
Folding clothes	3	4+
Keeping personal things in order	4	4+
Making bed	3	4+
Setting table	3	4+
Clearing table	3+	4+
Washing dishes	3	5
Drying dishes	4	4+
Cutting with scissors	3 needs practice	3
Hammering a nail	4	5
Pouring (filling glasses)	3	4+

Student 8: Student 8 took part in all work and activities and showed pride in his improvement. He volunteered for duties and worked well with the group. His parents expressed thanks for the experience.

SKILLS FOR SUMMER WORKSHOP 1970

Student 8

Likert Scale
1. None
2. Poorly
3. Average
4. Above Average
5. Excellent

	Pre-test	Post-test
GROOMING AND DRESSING		
Dressing Self	3	4
Grooming	2	3
SOCIAL GRACES		
Reporting on schedule (on time)	3	4
Following directions	3	4
Working with others	3	4
Carrying on a conversation with someone	2	5
Playing games or sharing some activity	3	4
Used please and thank you	3	5
SPECIFIC TABLE MANNERS		
Finding place	2	4
Waiting for others	3	5
Cutting meat	2	3
Sharing with others	3	4
Appropriate table conversation	3	4
Requesting and accepting service	3	4
Good posture	4	5
HOMEMAKING		
Folding clothes	2	4
Keeping personal things in order	2	5
Making bed	4	5
Setting table	1-	3
Clearing table	1	3
Washing dishes	1	3
Drying dishes	1	3
Cutting with scissors	1	3
Hammering a nail	1	3
Pouring (filling glasses)	3	4

Student 9: Student 9 showed improvement [illegible] skills in which he was given practice and attention. He got along well with adults but was rejected by his peers. He had very poor eating habits. Parents indicated that the family did not have meals as a group but they were eager to help.

These records along with other observations kept by the teachers indicated that the children enjoyed the experience and improved in the skills taught.

SKILLS FOR SUMMER WORKSHOP 1970

Student 9

Likert Scale
1. None
2. Poorly
3. Average
4. Above Average
5. Excellent

	Pre-test	Post-test
GROOMING AND DRESSING		
Dressing Self	3	4+
Grooming	3	4+
SOCIAL GRACES		
Reporting on schedule (on time)	3	4
Following directions	2	3
Working with others	2	4
Carrying on a conversation with someone	3	4
Playing games or sharing some activity	2	4
Used please and thank you	3	4
SPECIFIC TABLE MANNERS		
Finding place	3	5
Waiting for others	3	4
Cutting meat	3	4
Sharing with others	3	4
Appropriate table conversation	3	4+
Requesting and accepting service	3	4+
Good posture	2	4+
HOMEMAKING		
Folding clothes	2	4
Keeping personal things in order	2	4
Making bed	3	4+
Setting table	3	5
Clearing table	3	4+
Washing dishes	3	4+
Drying dishes	3	5
Cutting with scissors	2 needs practice	3
Hammering a nail	3	5
Pouring (filling glasses)	3	4+

Third Party Evaluator's Comments:

This project again demonstrated the effectiveness of this type of experience in improving the independent living skills of visually handicapped children. Both the check list and the narrative description for each child indicate growth in virtually all areas assessed.

As stated in the proposal, the project director was to visit each student's home to review evaluations with the student and parents as well as to demonstrate and reinforce newly acquired skills. The final report of the project indicated that the parents were appreciative of the camping program, but little information was provided concerning the parent's role in reinforcing the child's newly learned skills in the home setting. It would have been of interest to learn how well the parents were able to initiate the camping skills into the home.

This is the second summer in which this type of project has been conducted by the Eugene Public Schools. Both projects indicated that the children gained needed self–help skills. It is this evaluator's feeling that the type of activities conducted during the summer program be incorporated into the full year program. It is apparent that the children need this training. It should therefore be included on a full–year basis.

Project Title:	*Art for the TMR Child*
Type of Project:	*Trainable Mentally Retarded*
Location:	*Redmond*
Funding Allotted:	*$2,280*
Number of Children Served:	*14*

Background and Rationale:

Many severely mentally retarded children have never been exposed to a structured experience in the area of art. Staff at the Redmond Opportunity Center believed that retarded children were capable of forming abstract images and recording them as an artistic expression. Therefore, the purpose of this project was to provide the severely handicapped TMR children with a culturally enriched experience by exploring the world of art. It was hoped that this experience would allow the child to conceive abstract ideas and to express these as an integral part of the educational process. Further, they hoped to demonstrate that art should be taught as a part of the regular TMR curriculum to cultivate the handicapped child's artistic abilities to their fullest extent.

Objectives:

1. To introduce the child to color and to teach him to mix them. Also, to demonstrate to the child the fact that he does have a unique method of expressing his ideas.
2. To allow the child to experiment through the use of different art medias and create understandable compositions.
3. To provide the individual student with an otherwise unknown concept of his environment and ability to discuss and describe these concepts.

Methdology:

This project was conducted from June 1, 1970 through July 17, 1970. Initially, 21 students were expected to participate in the project, however, due to conflicting summer vacation schedules and children moving from the immediate area, only 14 students participated in the project. Project staff included the project director, two teachers, and one teacher aide. All of this staff were currently employed by the Redmond Opportunity School. The population for this project was selected from students who are currently enrolled in the Opportunity School of Central Oregon which is located in Redmond. All classes were also conducted in the Redmond Opportunity School.

On June 1 and 2, in–service training was conducted for the staff. This training was conducted by the director of the project. The in–service training was composed of a simulated class situation which instructed the staff through each exercise to which TMR students would later be introduced. Visits to the Central Oregon Community College art department and various Bend art shows were also included as part of the in–service training.

On June 4, 1970, classes began for the children. Classes were conducted daily from 9:00 a.m. to 3:00 p.m. Each day was scheduled so that periods of group instruction, individual study and discussion of current projects was provided for the students. Various units were presented to the students during the project. These included units on shape and form, a line unit and a color unit. These units were structured so that the students could then produce projects in three areas: stabiles, pottery and murals. Projects in pottery included pinch pots constructed from balls of clay and pinched together to form a pot. Slat pots were made in the same way by forming slabs of clay and pinching them together at the joints. Coil pots were also constructed by rolling out small coils of clay and forming them into desired shapes. Murals were made by having each student be responsible for various sections of the mural. Children were allowed to select their own sections and colors.

Evaluation:

The method of evaluation included a series of three observations by the project staff. Slide photographs were taken of the completed projects during each of these observation periods. Subjective comments were then written during these evaluation periods.

Results:

Three slides were submitted as containing selected examples of each student's work during the project. Each group of slides included the following subjective comments as to the child's progress during the project.

Child No. 1:

This was a young man who was in a hurry at the beginning of the project. He did not seem to have time to concern himself with shape or size nor recognition as to his use of colors. The colors that he did use were primarily dark and muddy. The improvement found in his compositions came through in the background portions rather than the primary subject. He was, towards the end of the project, beginning to experiment with line and color and seemed to realize that color added perspective.

Child No. 2:

His first composition left much to be desired as to dimensions. His shortcomings as to dimensions showed up in all areas of his first compositions. Towards the end of the project Doug not only composed compositions with excellent dimensional quality, but also showed an outstanding use of color and situation placement as to his subject matter.

Child No. 3:

In the beginning her use of color was quite limited. Upon being given assignments that required use as to a variety of color, she responded immediately. She has no problem as to transposing colors of given objects such as creating green people or blue trees. Throughout the course she continued to grow in her color usage and the adding of detail to her compositions. Her compositions as to people were excellent. As to comparable sizes, however, there is a lack of understanding as to proportions of other objects in comparison to the human.

Child No. 4:

At the beginning of the project her use of color was varied, but dull. As the project increased she tended to add more detail as to shape and line. At the conclusion of the project we observed much improvement as to the entire composition and the use of color, shape, line and detail. She appears to be much more aware of what she is doing and how she is portraying her subject matter.

Child No. 5:

He seemed to be overly interested in what everyone else was doing and, therefore, in the beginning took very little interest in his own work which showed through by his limited use of colors. The staff found that he has been aided so much by his mother or other members of the family that he lacks an ability to function on his own. Throughout the project we did find that he could use many colors and could produce some understandable compositions; however, there was no real progress seen.

Child No. 6:

This child made a strong attempt at using the media which was set before him; however, due to a lack of experience and an extremely short attention span his only real compositions came about through constant supervision. Towards the end of this project he began to use brighter, more interesting color combinations, but still needed constant attention.

Child No. 7:

She seemed to enjoy using colors; however, she had a problem of overworking her colors and they become muddy and unrecognizable. In the beginning she showed very little knowledge as to composition of proportion. Towards the end of this project she began to control her colors and preferred to work on composition of landscapes or vegetation, but had no desire to depict people.

Child No. 8:

This child's use of color was limited to pale, transparent use; however, they were put together in a pleasing combination. Towards the middle of the project the colors became brighter and more vivid in comparison. Her understanding of the use of color was excellent. Towards the end of the project she showed much growth in her compositions not only in the use of color, but in all other areas.

Child No. 9:

In the beginning this girl was a "one color" girl and that was primarily a dark color. She also seemingly had no concept of proportion or of recording shape and form; however, towards the middle of the project she began experimenting with color and was making progress towards understandable compositions. The growth that was observed in this child was very minute, but for her was a great improvement.

Child No. 10:

At the beginning of the project this boy's use of color was extremely sloppy. Most projects tended to end up muddy compositions. It was believed that the reason for the muddy composition was due to lack of finger coordination. His compositions of people showed grotesque hands, but otherwise fairly well proportioned individuals. Towards the end of the project and after being instructed in the proper use of the different medias his compositions became more realistic and understandable and there was extreme concern for detail.

Child No. 11:

As we had thought prior to this project this boy was an extremely capable young man as to his abilities to express his thoughts and feelings through artistic compositions. The only improvement that could be seen in his projects were the use of color and it was believed by the staff that the improvement as to the use of color was due merely to the fact that he possibly for the first time had color to work with and recognized the power and beauty that was added to his compositions by using color.

Child No. 12:

In the beginning this boy had no concern for subject matter nor color. His entire concerns were based around using the media in any random fashion. During this time he was unable to explain what was meant by his compositions, but with very little prompting could fantacize and come up with just about any subject matter. Towards the end of the project definite improvement was seen as to his overall compositions due to his increased control. He is still in need of constant supervision. His lack of attention does not allow him to finish a composition.

Child No. 13:

In the beginning this child seemingly lacked all self-concept. She seemed almost pleased that she had fingers and that she could compose a composition of her hand and that it became something more than just a round object. Her use of color increased to the point of being very warm. Towards the latter part of the project she showed that she could recall to memory experiences from the past. She came to a point where she started to move away from her warm colors and record her compositions as though she were seeing them for the first time.

Child No. 14:

In the beginning this girl's colors were very vivid and she had a knowledge of mixing colors and finding the color which she desired. Most of her compositions portrayed action and were of human subjects. She did also show quite a bit of improvement as to her proportions. The biggest improvement shown would be the interest she began to take in her work and her final composition.

Third Party Evaluator's Comments:

It should be noted that twenty–one students were expected to be involved in this summer project, but only fourteen ultimately participated.

That there is a need for a structured program in the area of art in the TMR Curriculum is a question that has not been answered by the results of this project. The project director indicated that even a summer project of teaching art five hours a day for four weeks was not an acceptable plan, as the students soon became bored. One might conclude that this project would provide the TMR teachers with more skills in teaching art during the regular skill year. However, this training was not stated as an objective, nor discussed in the project director's final report.

It is difficult to assess the accomplishment of the objectives in this project.

1. "To introduce the child to color and to teach him to mix them . . .
2. To allow the child to experiment through the use of different art media and create understandable compositions."

It seems that the students were exposed to art and did produce compositions in three areas: stabiles, pottery and murals.

The slides that were submitted with the final report were to the "untrained eye" examples of progress made by each student. However, the subjective comments of the project director did not describe the quality of these projects as they related to the use of form, shape, line and color in sufficient detail to determine whether in his professional and trained opinion progress had been made or not.

The comments of the project director may shed some light on the accomplishment of the second part of objective 1 and the remaining objectives:

1. "To demonstrate to the child that he does have a unique method of expressing his ideas,

   The project director states:

   > "Through this project we cannot show evidence that the TMR child has a unique method of expressing his ideas. However, through our observations we found that these children are capable of expressing ideas in a composition type manner, indicating that they are aware of their surroundings and events taking place within their environment. They are also capable of recording same in symbolic representation, such as a sketch.
   >
   > The child, as any normal child, uses shapes, forms, line, and color at a level comparable to his mental age and from experience it can safely be said that his compositions would be at the norm of the mental age of a non TMR child."

2. to provide the individual student with an otherwise unknown concept of his environment,

The director's comment relative to this objective indicated some doubt as to the accomplishment of this objective. Part of this doubt may arise because of the lack of specificity of the objective.

> "The concepts used did not seem to be unknown to the students, however, the proper use of a brush, and paints a tools was needfully stressed with some of the students. Therefore, I would say that this was not an objective of much value."

3. to provide him with an opportunity to discuss and describe these concepts."

The project director's comments:

> "Prior to the beginning of new projects and prior to each session there were discussions to refresh the student as to what we were doing. At that time the students were involved and did contribute to these discussions.
>
> There was constant discussion and evaluation taking place between student and teacher as well as student/student discussions. Therefore, it can be said that the objective of discussions of the concepts was met and considered a success.'

This was a unique project and demonstrated that some TMR students are capable of improving their abilities in art. That the conclusions were definitive is questionable, however.

The funding of a "one subject" project for this length of time must be questioned. The students became bored because of the lack of a varied program, and thus some of the merit of the program was lost. Objectives should have been prescribed with more specificity in keeping with behavioral objectives. The Third Party Evaluation Team must bear part of the blame for this failing.

Project Title:	*To Teach the Handicapped to Function Independently Out–of–Doors*
Type of Project:	*Educable Mentally Retarded/Trainable Mentally Retarded*
Location:	*Camp Civitan, Sweet Home*
Funding Allotted:	*$2,633*
Number of Children Served:	*19*

Background and Rationale:

Camp Civitan, located at the North Fork of the Santiam River, consists of a group of three buildings with a large expansive area that can be used for camping purposes. The Civitan Association of Oregon leases the camp to the Oregon Association for Retarded Children. The Oregon Association for Retarded Children has been interested in promoting summer camp experiences for retarded children, whereas it is now presently being used only on weekends by families and small groups. This project was an effort to initiate the summer camp experience and was sponsored by the Sweet Home School District.

Objectives:

Primary objective of the project was to teach the handicapped to function independently out–of–doors.

This primary objective was divided into subsidiary objectives which can be stated as follows and which were classified as goals by the Camp staff:

Goal 1. Function independently in an emergency situation by knowing how to employ first aid measures.

Goal 2. Function independently out–of–doors by being able to build camp fires.

Goal 3. Function independently out–of–doors so as to be able to prepare food.

Goal 4. Improve physical coordination through games and play.

Goal 5. Improve high hand coordination skills that will enable the individual to work independently on arts and crafts.

Goal 6. Expose the child to added responsibilities of outdoor education. (This goal applied only to advanced students.)

Methodology:

Nineteen children, all either educable mentally retarded or trainable mentally retarded, participated in the program. These children attended the summer camp for one week during the summer of 1970. The camp was conducted for a total of two weeks. The campers were all involved in a structured daily routine that consisted of camping, hiking, fire building, fire safety, fishing, outdoor cooking, first aid, trail safety, camp safety, conservation, care and use of camp equipment, nature identification, arts and crafts, and various recreational and physical educational activities. The day ended with an evening camp fire and snack.

A staff of four administered the program and were assisted in the conduct of the program by volunteers from Youth Association for Retarded Children.

Evaluation Plan:

Records of each of the children's performance rated as either "satisfactory," "needs improvement," "progress was satisfactory but needs further instruction" or "unsatisfactory" were planned for each child in each of the goals listed under Objectives.

In addition, an evaluation form was completed by the staff of the camp. This evaluation was considered to be very pertinent since these were experienced camp personnel who were inaugurating a new program and would be able to comment upon its effectiveness.

Parents were requested to prepare responses about the camp to indicate how they felt the camp experience effected their children.

Results:

Detailed records were maintained for each of the children who attended the summer camp program. An analysis of these records in each of the goal areas indicated little improvement during the one week session. Occasionally a child in one area might move from a position of "progress satisfactory but needs further instruction" to a position of "satisfactory." The fact that no greater progress was noted may be explained by the fact that the children attended the camp for so short a period of time. An examination of the evaluation comments of the staff at Camp Civitan indicate that one of the major complaints about the program was the fact that each child could only spend one week in the program and that no progress could be shown in that time.

In addition, the following summary of comments from the staff indicate other difficulties associated with the program. First, the facilities require some upgrading. More water pressure is needed; a freezer is required; adequate laundry facilities are needed; sturdy chairs are required in the dining area; larger stoves are needed; adequate garbage facilities are required; sleeping facilities need to be improved to provide at least one mattress per person; more cooking utensils are required. The play area must be improved although there is some indication that sawdust is now going to be placed over the area which will assist its utility value.

The staff generally agreed that the educable mentally retarded children and the trainable mentally retarded children should be separated in the camp experience. Although the staff recognizes the need for individual programming for these types of children, the range of individual differences would be minimized if the two levels of retardation were grouped separately.

It was felt that some of the goals specified for the program were unrealistic and an examination of the records of the individual children tend to support this, especially in the area of the trainable mentally retarded child.

Comments from six parents indicated a high degree of enthusiasm for the camp and what it attempted to do for the children. All agreed that it was beneficial and all agreed that the children should attend camp for a period of time.

Third Party Evaluator's Comments:

This project cannot be seriously criticized for not making more progress with the children than was manifested in a one week period. The third party evaluation team must concur wholeheartedly with the staff of the Camp Civitan summer camp in their observation that the children should be attending camp for at least a period of two weeks in order to gain maximum advantage of that experience.

The goals as specified by the camp staff seemed reasonable for educable mentally retarded children. They may well require revision for trainable mentally retarded children.

It is the opinion of the third party evaluation team that although Camp Civitan has been designated as a camp area for retarded children, the area itself has not been adequately prepared for that type of experience. Bulldozing, leveling, and clearing of a rock stone playground which serves as a ballfield is necessary. The various complaints registered by the staff members as to the inadequacy of the facilities relative to water pressure, freezer capabilities, cooking capabilities and sleeping accommodations are all serious drawbacks which must be remediated prior to the utilization of the camp for the purposes designated in this project.

It is the opinion of the third party evaluation team that responsibility for these preparations must in part rest with the Oregon Association for Retarded Children. Although this project was sponsored by a school district, who administered the program as capably as possible under the circumstances, the Oregon Association for Retarded Children was not without responsibility for the successful conduct of this project. Although the purchase of a stove and a freezer are high expenses, and the clearing of the ballfield is also an expensive undertaking, it is believed that this should have been arranged for by the Oregon Association for Retarded Children prior to instituting a major camping operation. It is recommended to this organization that they arrange for these preparations to be completed as soon as possible so that the camp may receive maximum utilization.

The third party evaluation team must agree enthusiastically with one of the recommendations made by the camp director. This recommendation is quoted as follows: " . . . . I feel that Camp Civitan could be utilized on a year round basis. I would like to see TMR and EMR teachers take advantage of the facilities and set up an outdoor education program in the fall and use the facilities for weekends throughout the year . . . . " In addition, the camp director believed . . . . "that with the number of TMR and EMR programs in the state that the camp could be utilized throughout the entire summer."

The third party evaluation team recognizes the value of this camp to retarded children throughout the state and strongly recommends that the Oregon Association for Retarded Children make every effort to publicize and sponsor the utilization of this camp on a year round basis.

Finally, the summer camp staff should be congratulated for conducting as an effective camp as they did with facilities and materials far from adequate.

Title of Project:	*Scappoose Summer Speech Program*
Type of Project:	*Speech Correction*
Location:	*Otto Petersen School, Scappoose*
Funding Allotted:	*$2,950*
Number of Children Served:	*20*

Background and Rationale:

The Scappoose School District had no speech therapist to provide service to children who demonstrated speech handicaps. It was anticipated that these handicaps would cause academic and social adjustment problems for these children.

Consequently, the purpose of this project was to provide a summer speech program which would demonstrate to the administration of the school district the need and value of providing these services on a regular basis throughout the school district.

Objectives:

1. To identify those students who require speech and audiological services.
2. To evaluate those students as to their specific needs.
3. To provide speech and aural rehabilitation services.
4. To include parents and classroom teachers in this program.
5. To demonstrate to the administration of the Scappoose School District the need and value of providing speech therapy services for these children residing in the Scappoose District who require such services.

Methodology:

This project was conducted from June 15, 1970 through August 8, 1970. There were twenty students involved in the project. Staff included the director, a school nurse from the Scappoose District who was instrumental in initiating this project, a certified speech therapist, 3 doctoral level speech pathologists from CCD of the University of Oregon Medical School and two volunteer aides from the local junior high school.

The program was initiated by evaluating 53 students who had been referred as having speech problems. Twenty–five students were selected for therapy. Five of these were selected as alternates in case one of the twenty students left the program. This evaluation was conducted by staff from CCD. Of the twenty students selected, 8 students were considered to have "severe" speech problems and 12 were found to have "moderate" speech problems. Subsequently, 18 children were involved in the program from beginning to end.

The first week of the project was spent in training teacher aides, conducting individual parent conferences, and administering further tests to gain more information about each child. The aides were trained to administer materials in Mauer's programmed articulation program, assist the children in other simple speech drills and prepare materials for the speech therapist that would be used later in the program.

The goals of the initial parent conference included: (a) Having the parent get their children to class on time, (b) Notifying the director when their child would be unable to attend, and, (c) Carrying out speech training in the home. On July 16, 1970 a group meeting was also held in which the parents, the district superintendent, building principals, remedial reading teachers, and classroom teachers were invited to attend. In this meeting the speech therapist discussed the development of speech, the importance of good speech, and ways that parents and school personnel could assist children in this area.

Therapy with the children was initiated during the second week of the project. The speech therapist was assisted by the student aides and the school counselor who were expected to continue this program during the regular school year. Ten children were scheduled for therapy twice each week; two came three days a week; and seven came four days a week. Each session lasted about thirty minutes.

Evaluation:

An articulation test was administered to each child on a pre–post basis to determine the child's ability to use specific consonant sounds correctly when used in words. Audio tape recordings were also made on each child before and after the summer's therapy to determine improvement in general intelligibility.

The Peabody Picture Vocabulary Test, Wepman Auditory Discrimination Test, Diodochokenetic Manneuverability Test, a hearing evaluation and a vision test were also administered to each child before therapy was initiated. These tests were utilized to give the therapist insight into the child's abilities and to determine appropriate procedures and materials that would be used in the remedial program.

Results:

Twelve children were diagnosed as having functional articulation problems, four as delayed speech development, one as having impaired hearing, and one had a cleft–palate. However, objective data results on all children were reported on gains in articulation skills. This data accompanied by subjective comments on improvement are reported in Table I.

Table I

Evaluation of Children Receiving Speech Therapy

CHILD	Type of Problem	Attendance	Consonant Sounds Deviant on Pre-test	Consonant Sounds Deviant on Post-test	Corrected Sounds	Referrals Made to Other Agencies	Subjective comments regarding behavioral changes
No. 1	Functional Articulation	8 of 9 sessions	4	4	0	1. Psychological Evaluation 2. Frequent hearing evaluations	1. Was able to produce two of the deviant consonant sounds in isolation but not in words.
No. 2	Functional Articulation	6 of 10 sessions	3	3	0	1. Orthodontist 2. Optometrist -glasses were obtained	1. Was able to produce the (r) phoneme in isolation and in nonsense syllables.
No. 3	Functional Articulation	10 of 19 sessions	6	6	0		1. Was not able to produce any of the deviant sounds in isolation.
No. 4	Functional Articulation	10 of 19 sessions	3	3	0		1. Was able to produce approximations of deviant sounds.
No. 5	Functional Articulation	8 of 8 sessions	4	2	2	1. Optometrist obtained glasses 2. Orthodontist	1. Carry-over in conversational speech has been effective on the two corrected sounds.
No. 6	Functional Articulation	7 of 10 sessions	2	1	1		1. Can produce the (r) sound in isolation but not in syllables or words.
No. 7	Functional Articulation	15 of 15 sessions	2	1	1	1. Orthodontist	1. Can use corrected sound in isolation with some inconsistencies.
No. 8	Functional Articulation	5 of 10 sessions	5	5	0		1. Little improvement because of poor attendance.
No. 9	Functional Articulation	9 of 10 sessions	1	1	0		1. Is able to produce deviant sounds in isolation and in nonsense syllables but not in words.
No. 10	Functional Articulation	11 of 11 sessions	9	8	1		1. Is able to produce all deviant sounds in isolation.
No. 11	Functional Articulation	4 of 10 sessions	1	1	0		1. Can discriminate the deviant sound from the correct one. Can occasionally produce the sound in isolation.
No. 12	Functional Articulation	17 of 21 sessions	4	4	0	1. Possible orthodontia	1. Can produce deviant sound in isolation and in nonsense syllables.
No. 13	Functional Articulation	13 of 15 sessions	6	3	3	1. Portland State University for further speech therapy	1. Can produce one additional sound in isolation.

Table I (Continued)

No. 14	Delayed Speech	21 of 21 sessions	12	12	0	1. Physician to check tongue for adequate ability to mobilize to produce various sounds	1. Can produce 1 sound in isolation and in nonsense syllables, and can discriminate most deviant sounds from correct stimulus.
No. 15	Delayed Speech	9 of 11 sessions	9	8	1	1. Possible referral to CCD speech and hearing Clinic	1. Can produce many of the deviant sounds in isolation.
No. 16	Delayed Speech	10 of 11 sessions	4	2	2	1. Optometrist	1. Can produce other deviant sounds in isolation.
No. 17	Delayed Speech	20 of 20 sessions	14	14	0	1. Optometrist 2. CCD Speech and Hearing Clinic	1. Can produce two of the deviant sounds in isolation.
No. 18	Cleft Palate Post-oper.	17 of 21 sessions	16	10	6	1. Continued participation with CCD Clinic	1. Progress was excellent!
No. 19	Hearing Impaired	7 of 7 sessions	2	2	0	1. State Board of Health for Hearing Aid Evaluation and Psychological Evaluation	1. Can produce 1 deviant sound in isolation.

Third Party Evaluator's Comments:

That there is a need for a speech therapy program in the Scappoose District is unquestioned. The large number of referrals made (53) and the subsequent case load (18) demonstrates the need for a speech therapist on at least a half–time basis in this district. It is recommended that the Scappoose District initiate such a program on a continuing basis if at all possible.

As to the effectivenss of the summer project, some negative comments must be made relative to the evaluation procedures: The only "hard data" reported was the correction of consonant sounds used in words on a pre–post articulation test. Subjective comments were offered concerning other changes in behavior but were not accompanied by data to substantiate their reliability. It was suggested to the speech therapist during the on–site visit that this data be collected and submitted, but this was not done.

For example, certain specific steps are involved in the correction of a deviant consonant sound, i.e., discrimination of the deviant sound from other consonant sounds or from the distortion currently being made, production of the sound in isolation and production of the sound with vowels. Data could have been gathered to substantiate when each child achieved these steps in the sequence.

Despite this weakness in the project, it must be viewed as making an important contribution to the education of handicapped children.

One–hundred and seven deviant sounds were reported on 18 children – 17 sounds were reported corrected during the project. This result may seem like a very small gain, but it is considered as evidence of a trend towards significance. There was insufficient time to correct more sounds than this during the six weeks.

Lack of progress with some children can also be blamed on poor attendance; some of the children attended only half the sessions offered them.

There were also a number of pertinent referrals made to various agencies that will undoubtedly not only assist the children with their speech problems but also with academic subjects in school.

Subjective data reported indicate that the program was an unqualified success. Parents should benefit from their exposure to their children's problems and the suggestions for remediation offered to them. Classroom teachers should benefit because of the vast amount of diagnostic information that was gathered on each child.

Special recognition should go to the nurse/counselor who initiated and directed this program. She recognized an unmet need in the district and attempted to remediate the deficiency in the educational program.

Mention should also be made of the time donated by 3 doctoral level staff members who recognized this same need and spent an inordinate amount of time in the district to demonstrate that there should be regular speech therapy services in the Scappoose School District.

Project Title:	*A Program of Camping Experience for the Educable Mentally Retarded*
Type of Project:	*Educable Mentally Retarded*
Location:	*Bend*
Funding Allotted:	*$4,265*
Number of Children Served:	*29*

Background and Rationale:

The Curriculum Guide for Mentally Retarded School Children in Oregon states that health, safety, physical education, and the use of leisure time are important aspects of the curriculum guide. A summer camp experience was provided to twenty–nine EMR students to provide meaningful experiences in these areas through camping activities.

Objectives:

1. Camping Experience
   a. Development of social skills around outdoor living.
   b. Aesthetic appreciation of mountain lakes.
   c. Opportunity to develop recreational skills.
   d. Development of basic motor skills.
2. Relaxed atmosphere between persons. Informality and much free time exploring and developing self concepts.
3. Opportunity for aides to see themselves as employees. Acceptance of role in relation to supervisors and children.
4. Camping practicum will give unique opportunity to show importance of recreation and leisure time curriculum for MR's.

Methodology:

There were three one–week camp experiences which served 29 students representing the Intermediate, Junior–Senior High and Primary levels. Four staff members, two teachers, and two aides participated in each week of camping, evaluation, and preparation for future campouts. (One aide was a member of the high school EMR class and the other was a high school student recently graduated from Bend High School.) The camping experiences were held on alternate weeks with the interim weeks being used for evaluation of the past week's activities and preparation for subsequent camp experiences.

The first week, July 1–5, was spent in preparation for the summer's activities. Schedules were made, equipment was cleaned, supplies were purchased, resource people were contacted, and all participants were notified as to their schedules for all activities. Below is listed a schedule of the remainder of the summer's activities:

July 6–11	Intermediate Group Campout
July 13–19	Evaluation of Intermediate Group Campout
July 20–25	Preparation for Junior–Senior High School Campout
July 27 – August 2	Primary Group Campout
Aug. 3–8	Evaluation of Primary Group Campout
Aug. 10–12	Preparation of the Final Report

A well–organized list of camping activities were planned for each group which included learning specific camping skills, identification of trees, flowers, and animals, and the pinpointing and modification of certain behaviors specified by the teachers.

Evaluation:

The following information was collected on each group:

1. Number and type of camping tasks completed.
2. Checklist on the identification of trees, flowers, and animals.
3. Work performance rating sheet on each camper aide.
4. Recording and charting of the rates of specific target behaviors as specified by the teacher.
5. Case report on each student.

Results:

Table I shows that the three groups learned a total of 60 new camping skills. The primary group acquired 9, the intermediate group 31 and the junior–senior high group 20.

A checklist of nature identification indicated that in two students in the primary group could identify three different trees (Ponderosa, White Fir and Willow) and three animals (deer, squirrel and bluejay). One student named two trees and three animals and the fourth one tree and two animals. In the other groups the number of trees, animals and birds was expanded to meet the students' abilities. The results showed that most students could name most of the ten trees and animals listed at the end of the camp experience. However, it must be noted that there was no baseline information reported as to what trees or animals the students knew before the camp experience. Consequently, it is unknown specifically how many were learned while involved in this project.

A work evaluation summary was compiled on each of the two teacher aides. Work skills such as promptness, following directions, quantity and quality of work and attitude and social relationships were rated on each aide.

TABLE I
Camp Skills Summary

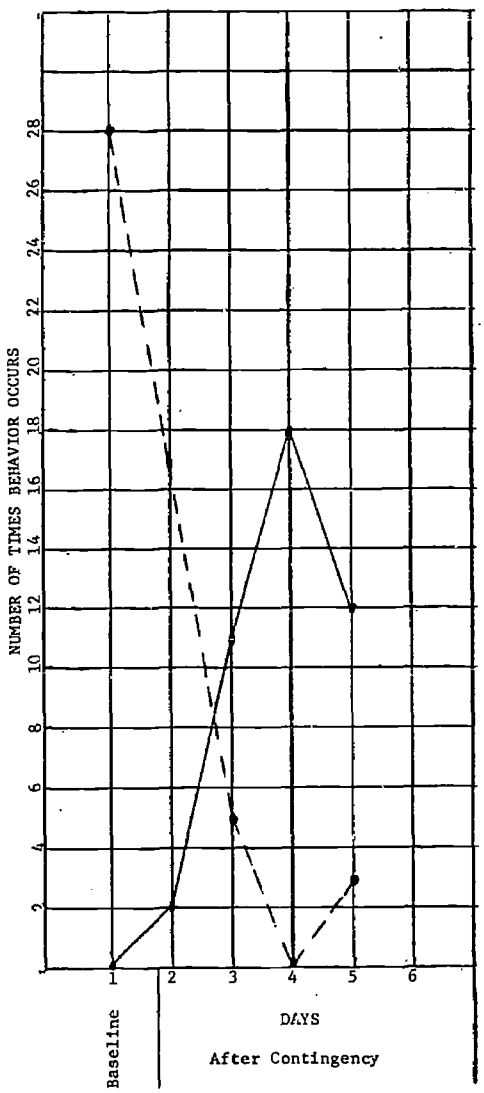
Primary Group 4 Students	Pre	Post	Diff
1. Lay, start, maintain, and put out a campfire. Gather appropriate types of wood for a campfire.	1	3	+2
2. Unroll sleeping bag.	3	4	+1
3. With limited aid from counselor, set up tent.	0	3	+3
4. Demonstrate that they can care for their own clothing for one night.	2	3	+1
5. Completely rig one fishing pole for bait fishing.	1	2	+1
6. Demonstrate good table manners.	2	3	+1
Total	9	18	+9
Intermediate Group 14 Students	**Pre**	**Post**	**Diff**
1. Can tie three of the following knots: slip knot double half hitch clove hitch square knot bolin	0	2	+2
2. Lay, start, maintain, and put out a campfire.	13	14	+1
3. Unroll sleeping bag, construct a suitable sleeping site, and roll up sleeping bag.	14	14	-
4. With limited aid from counselor set up tent for all kinds of weather.	7	12	+5
5. With aid from counselor prepare simple meal for campers.	7	14	+7
6. Demonstrate that they can perform simple first aid, i.e., triangular bandaging, shock treatment, application of tourniquets.	0	0	-
7. Row a boat 100 yards in a straight line.	0	0	-
8. Demonstrate, verbally and physically, rules of water safety, i.e., swimming with buddies, using trousers to construct water wings, and two types of artificial resuscitation.	0	2	+2
9. Demonstrate that they can care for their own clothing for one week.	10	14	+4
10. Completely rig one fishing pole for bait fishing.	12	14	+2
11. Demonstrate the proper use and care of camp tools, i.e., axe, shovel, and saw.	6	14	+8
Total	69	100	+31

Table I (Continued)

Junior - Senior High Group 11 Students	Pre	Post	Diff
1. Can tie three of the following knots: slip knot double half hitch clove hitch square knot bolin	2	7	+5
2. Lay, start, maintain, and put out a campfire.	8	12	+5
3. Unroll sleeping bag, construct a suitable sleeping site, and role up sleeping bag.	1	1	-
4. With limited aid from counselor set up tent for all kinds of weather.	7	7	-
5. With aid from counselor prepare simple meal for campers.	8	11	+3
6. Demonstrate that they can perform simple first aid, i.e., triangular bandaging, shock treatment, application of tourniquets.	2	4	+2
7. Row a boat 100 yards in a straight line.	5	5	-
8. Demonstrate, verbally and physically, rules of water safety, i.e., swimming with buddies, using trousers to construct water wings, and two types of artificial resuscitation.	3	3	-
9. Demonstrate that they can care for their own clothing for one week.	9	9	-
10. Completely rig one fishing pole for bait fishing.	7	10	+3
11. Demonstrate the proper use and care of camp tools, i.e., axe, shovel, and saw.	6	8	+2
Total	67	87	+20

The results indicated that both aides were successful in their summer experience. One of the aides is a member of the high school EMR class.

Three students in the intermediate group and two students in the primary group required reinforcers to change certain behaviors that the teacher felt required modification. These are outlined as follows:



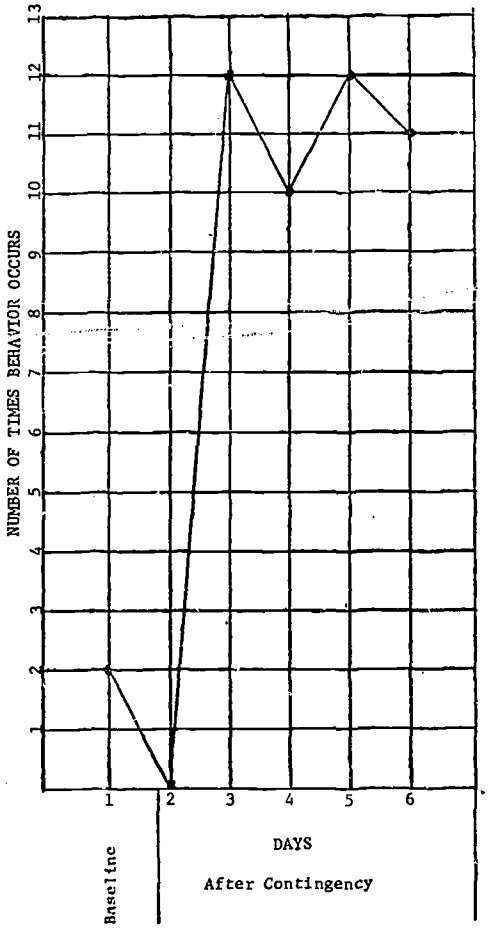
NAME: Dorothy - Intermediate Group

MODIFICATION GOAL:

1. To increase pleasant speech and actions.
2. Reinforcer: 1¢ for each incident of pleasant sppech and action.
   Take away 1¢ for each incident of unpleasant speech and action.

Pleasant _____

Unpleasant _ _ _

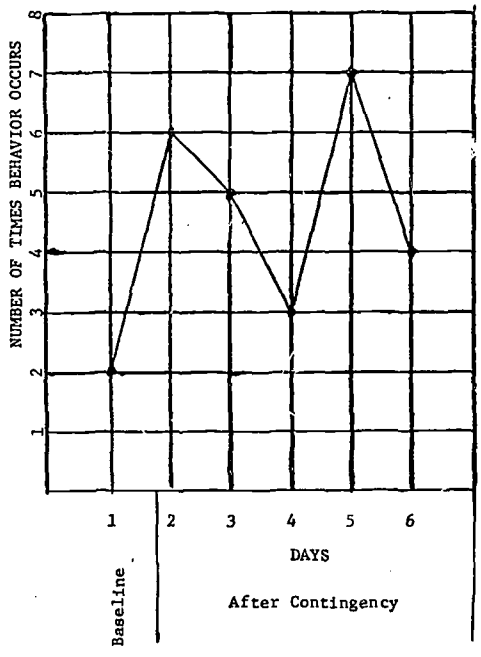


NAME: Scott - Intermediate Group

MODIFICATION GOAL:

1. To increase the number of times that Scott would volunteer to perform tasks during the campout.

2. Reinforcer: 1¢ per task

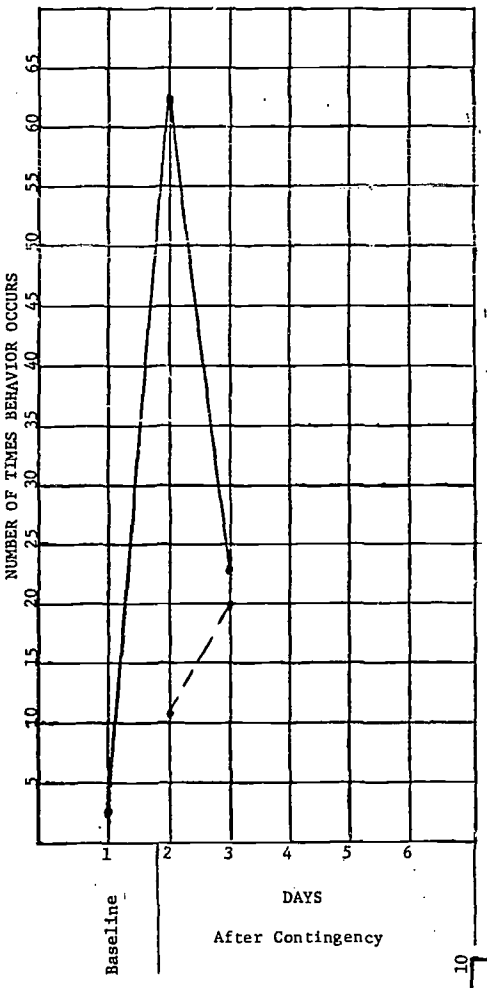


NAME: Jeff - Primary Group

MODIFICATION GOAL;

1. To increase number of tasks pleasantly performed.

2. Reinforcer - a point for each time he performed a camp task without arguing. A point would be subtracted each time he argued. 25 points at the end of the day will win a prize.



NAME: Jonathan - Intermediate Group

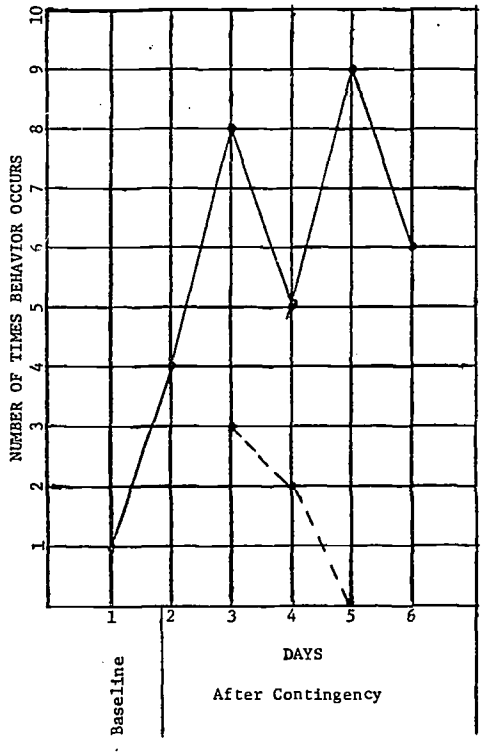
MODIFICATION GOAL:

1. To increase pleasant peer association behavior.

2. Reinforcer: 1 marshmallow for Jonathan and 1 for the group each time they reported an incident of "pleasant peer association."

Pleasant _____

Unpleasant __ __ __ __



NAME: Warren - Primary Group

MODIFICATION GOAL:

1. To increase pleasant peer association behavior.

2. Reinforcer - a point for each time he performed a camp task without arguing. A point would be subtracted each time he argued. 25 points at the end of the day will win a prize.

Pleasant _____

Unpleasant __ __ __

Third Party Evaluator's Comments:

This project was well–planned and executed, and had data to demonstrate that most of the objectives were met. However, there were no data to support the achievement of such objectives as development of basic motor skills. Some objectives were stated in such a way to make them impossible to evaluate, i.e., "to increase the aesthetic appreciation of mountain lakes." The data concerning identification of trees, flowers and animals had no baseline information, only what the child could do at the end of the project.

The data on the changes in certain social behaviors indicate that all behaviors listed were increased above baseline during the five day camp experience.

The subjective data was quite complete in that detailed case studies were maintained and reported for each child. The results of these indicated that there were many positive changes in behavior.

The staff on this project were extremely conscientious in their need to have each child participate and enjoy this experience to the fullest. It was obvious that they had planned each camping experience so that maximum amount of learning and enjoyment could occur.

Project Title: *Training of Kindergarten Teachers in Identification and Remediation of Learning Disabilities*

Type of Project: *Learning Disabilities*

Location: *Lake Oswego*

Funding Allotted: *$7,083*

Number of Children Served: *32*

Background and Rationale:

This project is primarily a continuation of two previous Title VI projects that were concerned with assessing the validity of the de Hirsch Test for *Predicting Reading Failures.* During the summer of 1969 a group of kindergarten children were identified as potential learning disabled on the basis of their de Hirsch Test results. Special intervention techniques were initiated with an experimental group selected from this group and a control group, who received no special intervention, was formed from the remaining children. The special intervention techniques designed in this summer project were then used during the 1969–70 school year with a group of kindergarten pupils identified as potential learning disabled on the basis of their de Hirsch Test results. An experimental and control group were again formed to determine if the special intervention techniques could be used to remediate potential reading failures. Effectiveness of the special program were assessed by administering the de Hirsch Test to the total group at the end of the 1969–70 school year. (A complete description of the 1969 summer project can be found in *Impact 3,* while a complete description of the 1969–70 project can be found in *Impact 4.)*

Thirty kindergarten children who participated in the 1969–70 full–year project but who failed the de Hirsch Test at the end of the 1969–70 school year were selected to participate in the present project. They were provided with additional special help during the six–week summer session. Also, regular kindergarten and first grade teachers were trained to conduct the special program. Thus the purpose of this project was to provide additional special help to kindergarten children who indicated they were in need of remedial instruction and to train regular kindergarten and first grade teachers in the use of special remedial techniques.

Objectives:

1. To identify potential learning disabled children at the kindergarten level.
2. To supply materials and techniques to remediate these students in their deficient areas.
3. To prepare these students to have more positive than negative experiences in learning to read.
4. To improve pre–school and primary grade teachers' skills in using remedial techniques and materials with potential learning disabled children.

Methodology:

This project was conducted from July 6 to August 14. Thirty–two kindergarten children were selected to participate in the project. All of these children failed the de Hirsch Test in June, 1970. Fifteen of these children formed the experimental group and they received special remedial instruction during the six week summer session. The remaining seventeen children formed the control group and they did not attend school during the summer. The CA range of the experimental group was 5 years 11 months to 6 years 10 months. And the CA range for the control group was 5 years 11 months to 7 years 6 months.

The staff of the project included four consultants with background experience in working with handicapped children, three kindergarten and two first grade teachers. Prior to the beginning of the project, the consultants conducted in–service training for the teaching staff. All this time, the teachers received information concerning methods, materials, and procedures for working with the children in the project.

During the first few days of the summer session, the three kindergarten teachers observed the consultants demonstrating the use of special materials and teaching techniques with the project children. During the remainder of the week the teachers worked with the children while the specialist observed and provided advice as needed. At the beginning of the following week, the teachers observed a different consultant working with a different set of materials and then the teachers used the materials for the remainder of the week. This process was repeated for a three–week period. At the conclusion of the first three–week period, two of the kindergarten teachers discontinued working in the project and two first grade teachers entered the program. They were given the same type of training as the kindergarten teachers. One of the kindergarten teachers worked the entire six weeks.

The program was held on a daily basis from 9:00 to 11:30 for six weeks. The children were seen in groups of five for 20 minute periods. Instruction was designed to improve each child's ability to see sequential relationships, reproduce spatial configurations of shapes, use language at a higher level, make better auditory discriminations and increase his power to concentrate and attend to assigned tasks. Three teachers worked in two of these areas daily so that the children had six different lessons each day. Children were staffed at the close of the day with specific

plans made for either observation or instruction the following day. Daily information was kept on behavioral changes of the children.

Evaluation Plan:

All children in the project were given a pre– and post–test on the de Hirsch Test to predict potential reading failure. The pre–test was administered in June, 1970 and the post–test was administered in September, 1970 after the 1970–71 school year had begun. Teacher attitude and performance in working with handicapped children was evaluated on a pre– post–test basis. The pre–test was administered prior to the in–service program and the post–test was administered at the close of the summer session.

In reviewing the results it should be remembered that all children in the project were selected because they failed the de Hirsch Test in June, 1970. A score of three or less is considered failing.

Results:

Table I contains the results of the children in the experimental group on the de Hirsch Test. These are the children who received the special instruction during the six–week summer session. Results indicate that 11 of the 14 children in the experimental group passed the de Hirsch Test on the post–test. Thus 79% of the group passed the test.

Table II provides the results for the control group. These children did not attend summer school and received no special help. The data indicates that 13 of the 17 children in the control group passed the de Hirsch Test on the post–test. Thus 76% of this group passed the post–test.

Table I

de Hirsch Test Scores
Experimental Group (N=14)

Student	de Hirsch June '70	de Hirsch Sept. '70
1	3	moved
2	3	6
3	3	4
4	3	5
5	3	5
6	3	5
7	2	3
8	3	6
9	3	5
10	3	5
11	2	6
12	2	4
13	1	1
14	3	5

Table II

de Hirsch Test Scores
Control Group (N=17)

Student	de Hirsch June '70	de Hirsch Sept. '70
1	3	6
2	2	3
3	3	6
4	3	5
5	2	7
6	3	4
7	2	5
8	1	6
9	1	4
10	2	4
11	3	7
12	2	5
13	3	5
14	0	3
15	0	1
16	1	2
17	2	6

Results of the test given to the teachers assessing their ability to use the materials and procedures developed in the project indicate that all of the teachers improved in this area.

Third Party Evaluator's Comments:

In reviewing the results of this project it must be noted that the experimental and control groups had about the same success rate in passing the de Hirsch Test on the post–test. This would indicate that the special remedial instruction was no more effective in improving these childrens' ability to perform, as measured by the de Hirsch Test, than no intervention at all. Whether or not this test does predict future reading failure remains to be seen since Katrina de Hirsch states that children failing this test in the kindergarten will not exhibit reading failure until the end of the second grade.

The training provided the teachers appears to have been effective since they were all able to appropriately use the materials in the project. If effective remedial materials and procedures can be used by regular classroom teachers with handicapped children, this would assist in providing regular classroom placement for these children. As indicated, the procedures and materials used in this project may not be the most effective in providing remedial help for children with possible learning disorders. Before this can be determined with certainty, the ability of the de Hirsch Test to predict reading failure at the end of the second grade must be evaluated.